NATIONAL REHABILITATION ASSOCIATION

1925 • 1950

CONFERENCE PROCEEDINGS

HOTEL STATLER
October 23, 24, 25 and 26, 1950
New York City, N. Y.

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TWENTY-FIFTH ANNIVERSARY

NATIONAL REHABILITATION ASSOCIATION

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ASHLEY S. ROSS, *Treasurer*

E. B. WHITTEN, *Executive Director*

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Printed by
AMERICAN REHABILITATION COMMITTEE, INC.
New York City, N. Y.

W. F. FAULKES
First President, N.R.A.
1925

GROVER A. WHALEN
730 FIFTH AVENUE
NEW YORK 19, N.Y.

March 14, 1951

Dear Mr. Elton:

I am sorry that I could not be present as Toastmaster at the Banquet of your Conference because I consider that Conference a striking example of American brotherhood. I amtold that it was a most wonderful gathering and that it will stimulate greater activity for the disabled throughout the country.

More power to the National Rehabilitation Association and to those who are promoting the brotherhood of Democracy by their work for the disabled.

Very sincerely,

Grover Whalen

INDEX

1. National Rehabilitation Association 9
2. 30 Years of Rehabilitation 13
3. Opening Session (Banquet) 22
4. General Session 25
5. In-Hospital Rehabilitation Service 28
6. The Rehabilitation of the Blind 47
7. The Industrially Injured 54
8. The School Child 66
9. The Rehabilitation Center 75
10. The Rehabilitation of the Mentally and Emotionally Ill 86
11. The Homebound and Sheltered Employment 116
12. Amputee Rehabilitation 130
13. Medical Session 152

NATIONAL REHABILITATION ASSOCIATION

The Twenty-fifth Anniversary

L. B. HARMON
President, 1950

J. J. BROWN
President, 1951

E. B. WHITTEN, ***Executive Director***
1025 Vermont Ave., N.W.
Washington 5, D. C.

This Conference marks the Twenty-fifth Anniversary of the founding of the National Rehabilitation Association in Cleveland in 1925. During this period, a better understanding of the needs of the disabled has broadened and improved all services by public and private agencies. Slowly but with certainty, it has come to be recognized that total rehabilitation requires the acceptance of a common purpose for all services and close cooperation and understanding by all agencies contributing in any way to the medical, physical, social, economic, and vocational welfare of the handicapped. Rehabilitation is not the work of one agency nor can it be achieved by any one of the many services engaged in this work. It requires teamwork, understanding and cooperation by all.

Mayor Vincent R. Impelliteri expresses his interest in Rehabilitation to Conference Chairman, F. G. Elton, and two members of the Program Committee, Dr. W. B. Snow and Dr. Frank J. O'Brien

This Conference set forth the processes which must be employed to achieve the maximum of total rehabilitation and to put emphasis upon the necessity for cooperation and teamwork between all persons and agencies rendering rehabilitation services, in order that each handicapped person will receive continuous, constructive, and complete assistance. This conference exemplified what it promoted by the cooperation and participation of many agencies in its planning and operation.

It is appropriate that we should turn back to the meeting of the National Rehabilitation Association in Cleveland in 1925. It is a pleasure to be able to

quote from a letter from its first president, who was honored at this 25th anniversary, Mr. W. F. Faulkes of Wisconsin:

> "The idea of a separate organization was conceived in Buffalo in 1923 in connection with the meeting of the National Society for Vocational Education. It was agreed at that time to set up a National Civilian Rehabilitation Conference. However, it was not separated entirely from the National Society for Vocational Education.
>
> "In Cleveland the meeting had crystallized further and the National Civilian Rehabilitation Conference was set up as a separate identity and we all considered that Cleveland was the birthplace of the N.R.A. However, an Executive Committee meeting was held at the Prince George Hotel, New York, in 1926. It was at this meeting that an amendment was made to the Constitution substituting the National Rehabilitation Association for National Civilian Rehabilitation Conference. These amendments were submitted to the Conference at Memphis in 1927 and approved; in fact, they had been approved by referendum prior to the Memphis meeting."

That was the founding of the National Rehabilitation Association.

The notes of the Executive Committee meeting to which Mr. Faulkes refers show the names of the following persons:

H. L. Stanton, North Carolina
R. M. Little, New York City
O. M. Sullivan, Minnesota
S. S. Riddle, Pennsylvania
D. M. Blankenship, Virginia
M. B. Perrin, Ohio
J. A. Kratz, Washington
F. G. Elton, New York City
W. F. Faulkes, Wisconsin

The secretary, Mr. J. R. Jewell of Nebraska, was absent.

Following are the presidents of the Association between 1925 to 1950:

W. F. Faulkes, Wisconsin	1925-1927
M. B. Perrin, Ohio	1927-1928
Percy Angove, Michigan	1928
Homer Stanton, North Carolina	1929-1930
A. H. Abbott, Oklahoma	1930-1932
Oscar Sullivan, Minnesota	1932-1934
H. D. Hicker, California	1934-1935
M. M. Walter, Pennsylvania	1936-1937
R. L. Bynum, Tennessee	1937-1938
Slater Bartlow, Indiana	1938-1939
Harry Bené, Arizona	1939-1941
Claude M. Andrews, Florida	1941-1944
R. C. Thompson, Maryland	1944-1945
Voyle C. Scurlock, Oklahoma	1945-1946
H. Earle Correvont, Michigan	1946-1947
Paul Barrett, Georgia	1948-1949
L. B. Harmon, Utah	1949-1950

The 1925-1926 Convention shows the names of 90 persons attending the Cleveland Conference at the founding of the N.R.A., and being the Charter Members.

The membership now exceeds 15,000. These 15,000 members are actively engaged in all types of service for the disabled, in hundreds of agencies in all the states and territories of the United States. They include doctors, psychiatrists, psychologists, industrialists, nurses, social workers, teachers, and vocational consultants. No other national association is made up of so many diversified fields of work, all brought together for the common purpose of helping disabled and handicapped persons to full physical, social, and economic rehabilitation.

Following are extracts from the N.R.A. News Letter of December, 1950 covering the 1950 Conference by E. B. Whitten, Executive Director, N.R.A.:

"Every N.R.A. conference has features that make it stand out from all others. This was notably true of the New York conference in October: the highest registration, over 1,200; greatest attendance at banquet, 600; greatest participation of rehabilitation and allied organizations; greatest number of exhibitors, educational and commercial; and a professional program second to none in N.R.A. history. This many features in one conference did not just happen, you may be sure. So heartiest congratulations and sincere thanks to Frederic G. Elton, conference chairman, to Louis Salzman, his assistant, and to all others who contributed to a most outstanding conference. We shall always be debtors to them for this service to the N.R.A."

"N.R.A. has been fortunate in its choice of presidents for many years; but never more so than when it elected Dr. L. B. Harmon, who completed his term at the New York conference. His sound judgment, his unselfish service, his sympathy and understanding, his devotion to the handicapped people we all serve, have been an inspiration to all his associates, but particularly to the NRA staff. His advice will continue to be frequently sought by NRA officials in the years ahead."

Total conference registration was 1,295, with 1,066 paying a registration fee. The remainder included speakers, exhibitors, monitors, and a few who attended the banquet where proof of registration was not required.

Among the organizations represented were:

- National Association for Mental Health
- American Psychiatric Association
- American Rehabilitation Committee, Inc.
- American Medical Association
- American Heart Association
- American Foundation for the Blind, Inc.
- American Federation of Labor
- Congress of Industrial Organizations
- Association of Casualty and Surety Companies
- Goodwill Industries of America, Inc.
- International Association of Industrial Accident Boards and Commissions
- International Association of Machinists
- National Association of Manufacturers
- United Mine Workers of America
- National Society for Crippled Children and Adults
- National Industries for the Blind
- National Tuberculosis Association
- National Committee on Sheltered Workshops
- Orthopedic Appliance and Limb Manufacturers Association
- World Health Organization

The government agencies are as follows:

- Federal Security Agency
- United States Public Health Service
- United States Department of Labor
- United States Employment Service
- Veterans Administration

THIRTY YEARS OF REHABILITATION

Federal Administrators

LEWIS H. CARRIS
1920 - 1921

JOHN A. KRATZ
1921 - 1943

MICHAEL J. SHORTLEY
1943 - 1950

Inasmuch as this Conference marks the 30th anniversary of the enactment of the first civilian vocational rehabilitation legislation, as well as the 25th anniversary of the N.R.A., it is appropriate that the Proceedings should include references to the public sentiment that promoted and sponsored it, the original Federal Organization for "Industrial Rehabilitation," the interpretation of vocational rehabilitation by that Organization, and the promotion of more liberal legislation by the N.R.A. World War I provided the springboard for the first Federal rehabilitation legislation. World War II provided the springboard for the extensive liberalization of the previous legislation and for the promotion of far greater public interest and the participation by many more agencies in the necessary services for the disabled. Thus, destructive wars gave birth to constructive physical, social, and economic services for the civilian disabled. In both instances, there was paralleling legislation for veterans of both wars and civilians. Following World War I, both services were under a common administration, the Federal Board for Vocational Education. Both were, however, conducted independently of each other under bureau heads and staff. Following World War II, the services were entirely separated in government administration, that for the veteran in the Veterans Administration, which grew out of World War I, and that for the civilians in the Office of Vocational Rehabilitation in the Federal Security Agency.

Early Support

The Federal Board for Vocational Education was established under an act of Congress (Smith-Hughes) in 1917 to administer the Federal-State aid program for the promotion of vocational education. It was composed of the Secretaries of Labor, Commerce, and Agriculture. Thus, we find associated with the work of rehabilitation during the period 1917 to 1921 such persons as Herbert Hoover, Secretary of Commerce; Henry Wallace, Secretary of Agriculture, and James J. Davis, Secretary of Labor. This Board also included the Commissioner of Education, and representatives of Labor, Commerce, and Agriculture.

When the "Smith-Sears Act" was passed by Congress in June of 1918, the responsibility for its administration was placed with this same Board. This legislation provided ". . . for the vocational rehabilitation and return to civil employment of disabled persons discharged from the military and naval forces of the United States. . . ."

In June of 1920, the first civilian rehabilitation law became effective. This was known as the "Industrial Rehabilitation Act." It provided ". . . for the promotion of the vocational rehabilitation of persons disabled in industry or otherwise, and their return to civil employment." Again the responsibility for the administration of this first Federal civilian rehabilitation was placed with the Federal Board for Vocational Education. It is interesting to note that the Executive branch of the government, through its cabinet officers representing Labor, Commerce, and Agriculture, was responsible for the introduction of the first rehabilitation services in this country.

The introduction and passage of the Industrial Rehabilitation Act of 1920 was not due so much to widespread public sentiment as it was to the interest which had been developing on the part of Labor and certain private agencies.

The American Federation of Labor and the Red Cross Institute for the Crippled and Disabled in New York City were two agencies that took an active part in urging and promoting this legislation. The American Federation of Labor, under the leadership of Samuel Gompers and his associates, among whom was Arthur E. Holder, who later became a member of the Federal Board for Vocational Education, had been for some years engaged in securing the passage of legislation, both Federal and State, for persons injured in industry. Through the passage of compensation laws between 1911 and 1918, practically every state had provided for medical care to the injured worker as his legal right when injured in his employment. Under these laws, the injured worker was not only provided with medical care, but with compensation during incapacity and a schedule of payments based upon a percentage of physical disability which lessened his earning capacity and interfered with his full physical performance as a worker. Thus, medical care and compensation had been secured and there only remained the necessary government provision to assist in getting the injured person back into employment. It is recognized that this first civilian rehabilitation legislation, known as the "Industrial Rehabilitation Act" and carrying the words "injured in industry or otherwise," was a further development of government aid to the injured worker. Thus, the interest of union labor strongly contributed to the passage of this legislation.

An outstanding example of the contribution of private agencies to the passage of this legislation is that of the Red Cross Institute for the Crippled and Disabled in New York City in 1918. Cooperating with the Federal Board for Vocational Education, it organized a course of training for a selected group of persons to prepare for the work in vocational rehabilitation. The course included four weeks of travel and observation in Canada under the auspices of the Red Cross Institute in cooperation with the Canadian Invalided Soldiers' Commission. The itinerary included visits to Ottawa, Montreal, Toronto, Saskatoon, Edmonton, Calgary, and Winnipeg.

Douglas C. McMurtrie, Director of the Red Cross Institute for the Crippled and Disabled, conducted this group of distinguished Americans as the guests of the Dominion of Canada on this four-week trip to the Canadian Re-education Centers for the purpose of learning the methods in practice to train returned soldiers and place them in positions to earn a livelihood. The Canadian government detailed Dr. James C. Miller of Edmonton, Director of Technical Education for that province, and formerly a district vocational officer of the Invalided Soldiers' Commission, to accompany the delegation as an educational expert and preceptor for the work in Canada. The information secured by this delegation, and by its study of rehabilitation work both for children and adults previously carried on in Europe, influenced both the first rehabilitation work for the veteran and for the civilian. Many of the thirty-two delegates became officials in the conduct of both types of work. This tour and the course was financed by the Red Cross Institute, now the Institute for the Crippled and Disabled in New York City.

Among the delegates was H. L. Brunson of St. Louis, Missouri, representing the International Association of Machinists, who later was in charge of the Placement Service in the veteran rehabilitation work. Raymond W. Ferris of Boston, Massachusetts, was a special agent of the Federal Board for Vocational Education and continued active in the work of that agency in the administra-

tion of both acts. Roy W. Kelly of Cambridge, Massachusetts, Director of the Bureau of Vocational Guidance of Harvard University, contributed a great deal by his publications to the promotion of the work for the disabled. Riley M. Little, Commissioner of the U. S. Employees' Compensation Commission, later became the director of civilian rehabilitation in New York State and continued in that position until his death in 1938. He was a strong leader in the promotion of the work. James P. Munroe was the Vice-Chairman of the Federal Board for Vocational Education. S. S. Riddle of the Department of Labor in Pennsylvania, became the first director of civilian rehabilitation in Pennsylvania. Charles W. Sylvester of Hammond, Indiana, then the director of vocational education in that state, later became the district vocational officer of District No. 8 for the veteran rehabilitation in Chicago, Illinois. Grant Hamilton, of the American Federation of Labor, continued active in promoting the rehabilitation work for the injured worker.

Thus, we have representatives of the major influences that supported the legislation and made possible its successful introduction in this country.

Original Federal Organization

The Federal Board for Vocational Education in 1920 had a three-fold function of promoting the programs of vocational education and vocational rehabilitation of civilian disabled in cooperation with the States, and the program of vocational rehabilitation of the soldier disabled as a direct function of the Federal government.

The following was the organization of the Federal Board for Vocational Education in the year 1920 when the program of rehabilitation of civilian disabled was initiated:

William B. Wilson, Secretary of Labor, Chairman
Joshua W. Alexander, Secretary of Commerce
Edwin T. Meredith, Secretary of Agriculture
James P. Munroe, Manufacture and Commerce, Vice Chairman
Calvin F. McIntosh, Agriculture
Arthur E. Holder, Labor
P. P. Claxton, N. S. Commissioner of Education

The latter four members (non-cabinet) constituted a Standing Committee which acted for the Board when not in session.

The executive top-staff of the Board were the following:

Nel W. Lamkin, Director
Layton S. Hawkins, Ass't. Director, Vocational Education
R. T. Fisher, Ass't. Director, Vocational Rehabilitation (Soldier)
Lewis H. Carris, Ass't. Director, Industrial Rehabilitation (Civilian)
John Cummings, Economist and Statistician

The following persons were recruited by Assistant Director Lewis H. Carris in 1920 to compose the professional staff of his division:

Mr. Frederic G. Elton, August, 1920
Dr. Frank Harrison, September, 1920
Mr. John A. Kratz, October, 1920
Mr. Frank J. Clayton, December, 1920
Miss Tracy Copp, December, 1920

The foundations for and the promotion of legislation by the State's governments and the development of state rehabilitation services were under the

direction of Mr. Lewis H. Carris, Assistant Director of the Federal Board for Vocational Education, and his staff. They were responsible for the interpretation of that first legislation which will be discussed later. Mr. Carris resigned in 1921 to become the Managing Director of the National Society for the Prevention of Blindness. Mr. John A. Kratz then became Chief of the Industrial Rehabilitation Division of the Federal Board for Vocational Education and continued in that capacity until 1943. Mr. Frederic G. Elton resigned in 1921 to become the District Director of the work in New York State, establishing the work in New York City.

During the period of 23 years from 1920 to 1943, acceptance acts were passed by all the states and all the territories and the civilian rehabilitation program became established as a cooperative Federal-State program for the disabled. (See *Journal of Rehabilitation,* January-February, 1951; article by John A. Kratz, "How Federal Laws Made Vocational Rehabilitation History.)

Interpretation

The Federal Board for Vocational Education, under the direction of its chief, Lewis H. Carris, issued two bulletins of importance in the early days of the civilian rehabilitation administration. These were Bulletin 64, March, 1921, and Bulletin 70, July, 1921. It is from the latter that we quote the basic principles of rehabilitation operation and procedure as set down at that time. It is of interest to note that these are still the controlling fundamentals of civilian rehabilitation. True it is that the Industrial Rehabilitation Act of 1920, despite the recognition of the importance of these services by the administration, did not provide for the expenditure of Federal funds for all of them. We are concerned, however, at this time only with the fact that all of the services necessary for total rehabilitation were recognized in 1920.

The first quotation is the statement of John Galsworthy of the British Ministry of Pensions as it appears in Bulletin 70 of 1921:

> "Therefore I would say, From the moment he enters the hospital, look after his mind and his will; give them food, nourish them in subtle ways; increase that nourishment as his strength increases. Give him interest in his future; light a star for him to fix his eyes on. So that, when he steps out of the hospital, you shall not have to begin to train one who for months, perhaps years, has been living, mindless, and will-less, the life of a half-dead creature."

That is the present principle of introducing the vocational service during hospitalization for its therapeutic value. Following is the statement of services in the order of consideration as set forth in Bulletin 70 and in the 1921 report of the Federal Board for Vocational Education:

(1) Service leading to physical reconstruction or functional restoration, enabling the person to return to his former occupation or to enter a new one.

(2) Service leading to the supplying of a prosthetic or special mechanical appliance, and instruction in its use, enabling the person to return to his former occupation or to enter a new one.

(3) Service providing persons having certain disease tendencies with working conditions or work favorable to the maintenance of health.

(4) Service providing the disabled person with an opportunity to establish himself in business or in industry in independent employment.
(5) Service providing suitable placement for the disabled person not susceptible for formal training.
(6) Service providing suitable training for a specific occupation.

This report of July, 1921, and Bulletin 70 of the same year, contain other significant statements bearing upon the early understanding of the necessary services "to render fit to engage in remunerative occupation."

> "As speedy restoration of earning power is of vital importance, re-establishment in employment must be effected in a manner that assures its being accomplished as quickly as efficient preparation will permit. The plan of rehabilitation followed must, therefore, fit the needs of the individual and, while training for employment may sometimes be advisable, prompt placement in a suitable job will be far more effective in the rehabilitation of many injured persons."

Bearing upon the subject of physical reconstruction and functional restoration under the major services of rehabilitation as set forth in these publications, we have the following:

> "1. Physical Reconstruction: — So many persons applying for vocational rehabilitation have disabilities that may be either wholly or partially corrected by medical or surgical measures that every effort should be made to discover whether the maximum physical restoration has been attained, even though the disability is of many years' standing. Persons who are disabled by stiff or limited joints, fractures with deformities, tendon adhesions, nerve injuries, and loss of function of groups of muscles resulting from infantile paralysis or other causes will be far better served by being put in the way of physical reconstruction (if this is possible), than by being trained around their disabilities. No argument is needed to prove that to restore the physical condition and capacity of the disabled person is a higher and more efficient type of service than to prepare him for a new occupation without such measures. If the rehabilitation service is to render any assistance at all its first obligation is to determine the possibility of physical rehabilitation, and no effort should be spared to assist the person to secure the best of medical or surgical treatment."

This quotation strongly sets forth the vital importance of first giving full attention to the possibility of physical improvement, to spare no effort to secure the best of medical or surgical treatment. This thought is further extended in Bulletin 70 with the following words:

> "Experience shows that in some cases, persons with physical disabilities, even of long standing, have been restored to their former positions by physical reconstruction, and many others so improved that their opportunities for employment have been greatly increased."

On the subject of the supplying of prosthetic or special mechanical appliances, we have the following from Bulletin 70:

> "It will be the business of agents in industrial rehabilitation, when an artificial appliance is provided, to take every precaution that the disabled person may be assured of a proper fitting." "On the other hand, even

with a good-fitting appliance, trouble may occur due to lack of proper care of the stump." "It must be pointed out further that instruction in the use of the artificial appliance is extremely necessary. It is, therefore, the duty of the agent to make sure that such instruction is provided."

There we have the basic principles in regard to the supplying of an artificial appliance as they exist today. Medical examination of the stump, medical supervision of the fitting, and instruction in the use by physical therapists and occupational therapists.

Bearing upon the subject of the selection of a job objective, we have the following:

"One of the first principles in vocational rehabilitation, provided the person had been satisfactorily employed at the time of injury or onset of disease, is that he be returned, if possible, to the same occupation. In most cases this makes for the efficiency, satisfaction, and happiness of the person because of his being returned to employment and employment conditions with which he is familiar. The first question then should always be, Is physical reconstruction possible?"

The above concludes as follows:

"It is evident that formal educational programs in the majority of cases are a secondary phase in the service of industrial rehabilitation."

Again from Bulletin 64, page 36, on the subject of a specific employment objective, we have the following:

"In determining upon a specific employment objective careful consideration should be given to the following possibilities:

(A) Return to former job.
(B) Change to a related job.
(C) Change to an unrelated job.'

Here is again emphasized the order of practice, consideration for speedy readjustment, conservation of experience, seniority rights, and work associations.

The above quotations clearly indicate the soundness of the thinking of those persons to whom was entrusted the analysis and interpretation of rehabilitation in 1920. It further shows that all the services necessary to refit a disabled person for remunerative occupation or total rehabilitation were not only recognized, but set forth as guiding principles for the work. They are the same guiding principles as exist today under Public Law 113 of 1943. It is appropriate that at this time, at the 30th anniversary of the passage of the first rehabilitation act, that credit be given to the pioneers who set forth these basic and constructive services. That this procedure of services was not followed by all the states prior to 1943, is largely because the Federal act did not provide Federal funds for the important services.

N.R.A. Promotes More Liberal Legislation

Dissatisfaction with the limitations placed upon the rehabilitation service as to what was permissible by interpretation and by rule, and the failure of the Federal legislation to recognize and provide Federal funds for certain important and necessary services, crystallized in 1939 with the setting up of the Planning and Promotion Committee by the National Rehabilitation Association.

This Committee included Miss Mary Switzer of the Federal Security Agency, John A. Kratz, Miss Tracy Copp, and I. M. Ristene, all of the Division of Vocational Rehabilitation, United States Office of Education; William F. Faulkes, Robert C. Thompson, M. M. Walter, Frederic G. Elton, H. C. Corpening, H. L. Stanton, and Clarence Kehoe, all representing state agencies, and Mrs. Bertha Margolies, Research Secretary.

It is set forth in the record that "the purpose of this Committee is to study and make recommendations in regard to more liberal interpretation of the existing Federal legislation."

It was acting upon that provision in the law which requires that the administration should provide for return to civil employment and to render fit to engage in remunerative occupation. The Committee took the stand that provision had been made to render every service necessary to achieve the objective. The Committee stressed the undue emphasis on training, and the importance of many other services which, up to that time, had received little attention.

In carrying out its purpose, it made a complete study of the existing conditions as they affected the disabled person. This study included the defense program then under way, and the need of these disabled people in industry. It included a study of conditions throughout the country and several bulletins were issued. It conferred with government officials with regard to legislation and what that legislation should include. It planned for a conference to be held in Washington. The theme of that conference to be the unification and coordination of all activities and agencies to put the handicapped to work. The conference was held at the Wardman Park Hotel in 1941.

From a committee meeting report in May of 1940, we have a list of the topics being considered:

1. Locating and finding the disabled.
2. Counsel and guidance.
3. Preparation for employment through PHYSICAL RESTORATION, training, or ANY OTHER service that may be necessary.
4. Placement.
5. Employment.

The work of this Committee, with the able assistance of Miss Mary Switzer, paved the way for the passage of Public Law 113 in 1943.

Conclusion

In 1943, Public Law 113 was enacted into legislation. This law made provision for all the services necessary for complete vocational and total rehabilitation. Mr. Michael J. Shortley was appointed Director, and with great vision has directed the Federal Office in cooperation with the state agencies. He and his associates have provided the leadership necessary for the promotion of this service for disabled people.

This concludes a brief history of some of the incidents leading up to the passage of the Industrial Rehabilitation Act of 1920, an outline of the original Federal organization for rehabilitation, an analysis and description of the service necessary to rehabilitate a disabled person by that organization, and the action of the National Rehabilitation Association for more liberal rehabilitation philosophy. Since 1943, great progress has been made, not only in the more completeness of the services provided but in the number of disabled persons benefited thereby.

Thus on this, the 30th anniversary of the passage of the first rehabilitation law, we can look back over thirty years of constructive, tireless effort on the part of those who have been and are engaged in this work and the final provision by Federal and States legislation for all those services necessary "to render fit for remunerative occupation."

OPENING SESSION

Monday, October 23, 1950 • Grand Ballroom, 6:30 P.M.

BANQUET

Presiding

DR. L. B. HARMON

President, National Rehabilitation Association

INVOCATION

REV. PATRICK J. FRAWLEY

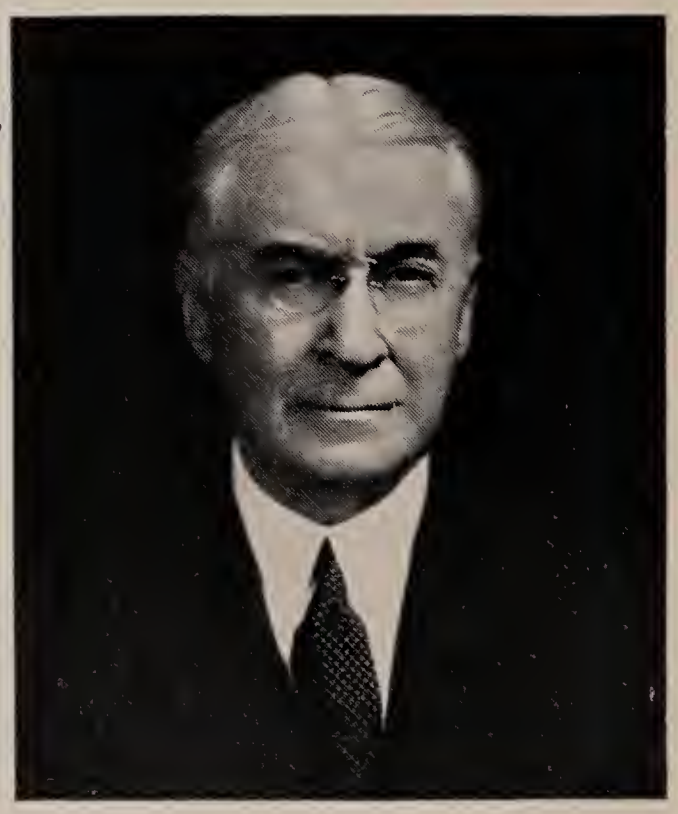
Division of Health and Hospitals, Catholic Charities, New York City

ADDRESS OF WELCOME

EDWARD CORSI

Industrial Commissioner, New York State Department of Labor

EDWARD CORSI



BERNARD M. BARUCH

Human Values in Rehabilitation

ELEANOR ROOSEVELT

United States Representative to the Social, Humanitarian and Cultural Committee, United Nations

Introduction

DR. WILLIAM BENHAM SNOW

The person whom it is my unanticipated pleasure to introduce is well known to all of us through her words, writings, and public relations. Mrs. Roosevelt, through her responsibilities at the United Nations, has been concerned with the problems of rehabilitation of the children of the entire world. She has had personal experience in rehabilitation of another noted citizen who, following his rehabilitation, led an entire nation as a capable executive.

It is a great pleasure for me to introduce to you a gracious lady, one whose friendliness and warmth of character have made her dearly loved in our country.

ABSTRACT OF MRS. ROOSEVELT'S REMARKS BY DR. SNOW, WITH COMMENTS

Mrs. Roosevelt stated that she was very glad that in introducing her, her committee in the U. N. had been mentioned. She stated that this committee had spent many hours and held many conferences with delegates of the darker, less developed nations, in trying to develop programs to improve the

health of their children. Unfortunately, her committee had not been able to accomplish everything it had hoped. These nations wanted the more finite type of help rather than the guidance and some assistance in long range planning offered them. They wanted the type of help which was given through services and supplied to the children of Italy and Germany following the second world war. Such a program, of course, would be far too expensive and impossible to effect, if it were spread over the large populations of the nations who needed it most. They seemed willing to be helped but not to help themselves.

Mrs. Roosevelt stated that when she was introduced, reference was made to her husband. She stated that the greatest part of the rehabilitation of Franklin was that he overcame fear, the fear that goes with a limited physical capacity. He overcame this fear very early in his polio life and showed a "will to do" which made his rehabilitation a rather simple task. He did not hesitate to seek the help of others when he had reached the limit of his physical capacity. He was not too proud to recognize that minor indignities were sometimes necessary, to meet the basic problem of daily living and transportation. When faced with such problems, he would humorously go about overcoming them.

From this point, Mrs. Roosevelt discussed the importance of adjustment of the one rehabilitating himself to his environment, and the importance of courage and faith in his own ability, when the immediate fear had passed.

She discussed the democratic way of fitting the handicapped into everyday life. She also expressed appreciation of the work that this group, representing the various facets of rehabilitation, is doing to qualify, guide and place the less fortunate handicapped individuals, into our society.

Mrs. Roosevelt, in delivering this talk, presented her usual charm and personal magnetism. She stayed until near the end of the program and when she left the rostrum the entire assembly arose and applauded until she had left the ballroom.

World Problems in Rehabilitation

ALAN STOLLER, M.D.
Mental Health Section, World Health Organization, Geneva

Introduction

DR. JOHN A. P. MILLET

"It gives me great pleasure to introduce to this audience Dr. Alan Stoller, who has travelled almost 10,000 miles from "down under" to share his experience and thinking in the field of rehabilitation with us. Dr. Stoller has been charged with the responsibility for war for the Commonwealth of Australia. As a member of the Executive Committee of the World Federation for Mental Health he attended the annual meeting of the Federation in Paris during August and September. His services were then requested by Dr. Ronald Hargreaves, Chairman of the Division of Mental Health of the World Health Organization, to assist him in a survey of rehabilitation services throughout the civilized world. He is at present engaged in this study. We are grateful to Dr. Hargreaves and to the Australian authorities for having approved his attendance here today. Ladies and gentlemen, may I present Dr. Alan Stoller."

ABSTRACT OF DR. STOLLER'S REMARKS BY DR. MILLET

Dr. Stoller emphasized in his presentation his belief that a more comprehensive understanding of the problems of rehabilitation was essential if proper justice were to be done to individuals whose full usefulness has been impaired by illness or accident. He stressed the fact that psychiatric disabilities must be looked upon as illnesses from which patients frequently effect as complete a recovery as is the case with many forms of organic illness. In order to effect a properly integrated program of rehabilitation the approach to the problem must always be on a distinctly individual basis. The individual is the one to be rehabilitated and the whole cycle of his progress from original health to maximum possible recovery should be the concern of rehabilitation agencies and officials. The original illness or accident dislocates the individual from his accustomed place in the family, in the community and in his occupational life. He is obliged to be isolated from his accustomed environment for varying periods of time. During the period of hospitalization and of subsequent out-patient therapy, attention must be given to the family which he has left behind him in order that they may be kept in touch with the plans under way for his care and for planning his future. The morale of the individual will be either sustained or lowered by attitudes shown toward his illness and toward him by the members of his family and by his former employers. In most cases it is to be expected that the original efficiency to which they were accustomed will be to some extent lessened by the illness or

accident of which he has been the victim. All important individuals in his environment, therefore, need to have his situation and his future thoroughly explained to them, and their cooperation invited in helping him to feel accepted and welcome when he is returned to his home.

In order to insure such a program, the cooperative services of physicians, psychiatrists, social workers, and psychologists are usually needed if a properly integrated program and a satisfactory follow-through can be achieved. The role of the vocational counselor is frequently of vital importance in determining the suitability of the patient for his previous occupation, or in working out alternative employment possibilities. It is precisely at this level of constructive advice where the consultant services of these other specialists may be most effective.

The individual has to be considered as passing through a process, with a definite progression of phases, for each of which the collaboration of individuals, versed in the various disciplines having a bearing on the total health of the individual, are called upon to prepare a well rounded and consistently planned program which may then be expected to result in the maximum possible degree of successful rehabilitation.

MERITORIOUS AWARDS

Bernard M. Baruch

For leadership in promoting nationally physical restorative services for the seriously disabled.

William F. Faulkes

First President (1925) National Rehabilitation Association, for his long, faithful, and constructive service for the disabled

GENERAL SESSION

Tuesday, October 24, 1950 • Grand Ballroom, 9:00 A.M.

Presiding

DR. L. B. HARMON

President, National Rehabilitation Association

Rehabilitation on the March

DR. L. B. HARMON
President

I appreciate more than you can possibly know the opportunity I have had to serve as President of the National Rehabilitation Association during the past year. The support of all members of the Association in the plans and programs that have been promoted by the Association has been an inspiration to me and has contributed materially to the progress we have been able to make. It has been a distinct privilege to be able to attend a number of the Regional conferences of the N.R.A., to meet N.R.A. leaders and other leaders in the field of rehabilitation in many States and to draw inspiration and strength from the vigorous exchange of ideas which has characterized all these associations. It has given me a much broader perspective of the needs of the handicapped and greater courage in assuming leadership to fight the battles of handicapped people of this Nation.

Service to the handicapped people, in order to make them feel a sense of equality with other persons, is a responsibility that we, as professional workers, cannot side step nor shirk. It is a sense of justice and a heritage our Creator intended that all men should enjoy. So long as a nation rejects or keeps its disabled subservient to the masses, social progress becomes stalemated.

As a nation we were chagrined during World War II to find that approximately 40 per cent of our man power was physically unfit for military service. Later, a relatively large number were rejected from military service because they could not endure the daily routine and were rejected because of emotional inadequacies.

It is astounding to note the immensity of the Rehabilitation problem before us when we consider the potential number of disabled persons in need of service to fit them for the fullest possible life which they are capable of fulfilling.

This year has been the Silver Jubilee year. It is particularly significant for me to have served as President of the Association during this anniversary period, when the attention of all of us has been focused more than ordinarily upon the accomplishment of the Founding Fathers of our Association, a number of whom are with us today, and to whom we desire to pay homage. It is safe to say that these pioneers in the field of rehabilitation had wisdom and foresight beyond what might ordinarily have been expected of them and that the foundations they laid have proved to be solid upon which to build and expand the program that now exists. When we consider the difficulties that they encountered in their efforts to establish the rehabilitation idea in the minds of the people of this country, it seems almost miraculous that they wrought so well. The profoundest appreciation and thanks should go to these pioneers and leaders for the contributions they have made, and the service that some of them continue to make to rehabilitation throughout the Country.

One of the outstanding activities of my administration as President of the Association has been the promotion of additional legislation needed to expand programs for the rehabilitation of the handicapped. The Legislative Committee, under the very able chairmanship of Paul Barrett, has performed a truly great service to the total program of Rehabilitation. Senate hearings were conducted in May of this year by a subcommittee composed of Senators Douglas of Illinois, Lehman of New York and Aiken of Vermont. It was most encouraging to listen to the testimony presented to this committee and to realize how many friends vocational rehabilitation has in this country, and the high esteem in which we are generally regarded. Although there were disagreements concerning details of some of the proposed legislation, particularly administrative details, however everyone agreed that rehabilitation is sound, that the handicapped have definitely proved their ability to compete with other persons in our industries, that rehabilitation programs need to be expanded and that money spent by our State and Federal Gov-

ernments in the rehabilitation of its handicapped citizens is returned to the State many times both in economic and social gains.

A legislative bill, S-4051, was passed by the Senate in September and now awaits action of the House Committee on Education and Labor, where it probably will be considered soon after the end of the present congressional recess. This bill provided Federal aid for the establishment of sheltered workshops, rehabilitation centers and expanded programs for the blind and other severely disabled. Its passage should result in the continuation of the progress which has been so evident in recent years. The National Rehabilitation Association is wholeheartedly supporting S-4051, with a few amendments which are rather technical in nature.

Membership in the National Rehabilitation Association was materially increased from 1944 to 1950. We have grown from an organization of 600-700 members to one composed of practically 13,000 members. As a result the funds in our treasury have been substantially increased which has enabled the Association to do many things never before contemplated nor thought possible. The Association has become recognized as an organization of power and strength and one that must be given respectful consideration. With increased funds at our disposal, we were able to employ an Executive-Director, Journal Editor, legal council, secretarial help, set up an office, pay transportation expenses of persons and committees needed to attend meetings and conferences as well as many other services. As a result of this rapid growth of membership and the increased responsibilities in the National Rehabilitation Association, the machinery for carrying on the work of the Association has, in some instances, become impractical and even obsolete. With this in mind, we appointed a planning program committee, broadly representative of all geographical areas of the United States and of all classifications of membership, to study the existing structure of the National Rehabilitation Association and to recommend the changes that seemed to be needed to facilitate an orderly readjustment of activities and responsibilities of the Association. It was felt that long range planning for the Association was one of the important needs at this time in order to chart a course and a program that would be practical, sensible and wise.

The Planning Committee has done a major portion of its work through correspondence and by questionnaires. However, some of its members have presented various problems at Regional Conferences, distributed and collected questionnaires and secured opinions from the conference membership. This Committee, under the able chairmanship of Voyle Scurlock, has done a tremendous amount of work and has presented to the Board of Directors recommendations which are a challenge to all of us. Some of these recommendations are being presented in the form of amendments to the By-Laws of the Association and will be acted upon at this conference. It suffices to say at this time that the amendments proposed will encourage the formation of State and local chapters of the National Rehabilitation Association and look forward to the formation of a delegate assembly which may be the future law-making body of the Association. It may also suggest changes in the method of election of N.R.A. officers, changes in our publications, affect the amount of membership dues, and propose methods of publicity to inform handicapped persons throughout the country of the program of N.R.A. The recommendations of this committee will have far reaching effects on the future of our Association and the consideration of these recommendations given by the membership during this and other conferences will somewhat charter the future course of the Association.

The financial condition of the Association is sound, the budget for this year has been balanced and a small reserve set aside. Too much emphasis cannot be put upon the fact that the growing effectiveness of the National Rehabilitation Association in the field of education and general public welfare and particularly in the field of rehabilitation is dependent upon an alert membership and adequate financial support. I sincerely hope that the time may soon come when the membership is large enough to provide a program that is realistic in terms of the total needs of handicapped people.

During the spring of this year, the Regional conferences were held in cooperation with the Office of Vocational Rehabilitation in practically every Region of the country. It was gratifying to note the number of Professional workers from various fields of service who attended these meetings. Persons in attendance consisted of personnel from the fields of Rehabilitation, Medicine, Public Health, Welfare, Employment, Veterans Administration, Education, Social Service, Public Officials, disabled persons, other related fields and interested individuals. Larger numbers of persons gathered together in the interest of Rehabilitation than has ever been assembled in any one year. Regional con-

ferences provide the medium through which people in all sections of the country can attend and participate in conferences. Never before has there been greater interest and participation on the part of Rehabilitation counselors as has been manifest during these Regional Conferences.

The years ahead, and particularly the immediate years, present many challenges to us. One of these is that the concept of teamwork, and effective cooperation, in vocational rehabilitation may reach the highest possible point of development. It has been demonstrated many times that rehabilitation requires the services of many specialists in many diverse fields, that it requires the cooperation of public and private agencies and that only when a real spirit of teamwork prevails among these many individuals and institutions can most effective rehabilitation take place. We state confidently that we believe that this teamwork concept is more highly developed in rehabilitation than it has ever been and that rehabilitation is leading the way in pointing out the desirability of teamwork in many comparable fields of social endeavor. We are also challenged that a better public understanding of the social and economic fields of rehabilitation comes about. This will result in better financial support for rehabilitation programs of the public and private agencies. It is not enough that more people have come to accept, in an academic sense, the field of rehabilitation, but it is necessary that they conceive of rehabilitation as the heart of social welfare programs. How far we need to go in that respect is demonstrated by the fact that Congress appears willing to pour out into general welfare programs limitless sums, but is reluctant to appropriate more than nominal amounts for vocational rehabilitation. This same situation exists in nearly all the States. It is not that people are opposed to rehabilitation, but that they are lethargic when demands for support come to them. This situation can and must be changed. Next, we are challenged to secure the legislation that is needed to advance the welfare of handicapped people. We must not relax our efforts until desirable legislation is actually written, until funds have been appropriated to activate the legislation that is passed. In fact, we must be constantly alert, studying legislation to determine the needs of handicapped people, for what may seem to be satisfactory legislation today may become totally inadequate tomorrow. It is significant also to state that we must be on the alert to protect handicapped people from legislation which would retard rather than advance their rehabilitation. It has been demonstrated again and again that the rehabilitation idea is bigger than any one person, or any one organization. It is only when we all work together with an unselfish spirit of cooperation and even of sacrifice that we can be sure to obtain maximum results for the handicapped. The circumstances that have forced the United States into another foreign war make even more imperative than ordinary that rehabilitation be given its proper place in the American way of life. All man power authorities agree that we began this war with a much less favorable position in regard to man power than we began World War II in 1941. It is going to be even more important than before that handicapped people are utilized to the fullest extent in helping to turn the wheels of industry so necessary to the actual preservation of our way of life. We must be ready to give these handicapped people the services they need to become most advantageously employable. We must win employers who remain to be convinced that these people can and will produce satisfactorily if given an opportunity to make their contribution to the economic life of their country. Great gains were made for the handicapped during the war years and these gains have been largely maintained during the five years following the cessation of hostilities. Additional gains can and will be made during this period of emergency we now face.

I leave the Presidency of the National Rehabilitation Association believing that leadership is being passed on to most capable hands. I look forward to the continued growth of the Association under the leadership of Mr. J. J. Brown and the Board of Directors which will serve with him. To these men I pledge my cooperation in their efforts to assure the continued growth of the Association and service to handicapped persons.

Session on

IN-HOSPITAL REHABILITATION SERVICE

Tuesday, October 24, 1950 • Grand Ballroom, 10:00 A.M.

Presiding

EDGAR B. PORTER

Assistant Chief, Guidance, Training and Placement Branch
Office of Vocational Rehabilitation, Washington, D.C.

The Session Committee

CHAIRMAN, PRESIDING OFFICER

BERNARD DAITZ, *Veterans Administration, Washington, D.C.* • T. CAMPBELL THOMPSON, M.D., *Attending Orthopedic Surgeon and Executive Assistant to Surgeon-in-Chief, New York Society for the Relief of the Ruptured and Crippled, New York City* • HOLLAND HUDSON, *Director of the Rehabilitation Service, National Tuberculosis Association, New York City* • ULLYSES SCHUTZER, M.D., *Assistant Director, Central Islip State Hospital, Central Islip, New York* • ROBERTA TOWNSEND, *President of the National Committee on Sheltered Workshops, New York City* • D. J. ARNOLD, *Associate Supervisor, Division of Vocational Rehabilitation, New York City*

Relationship to a Hospital Rehabilitation Service to Medical Treatment

HERBERT R. EDWARDS, M.D.
Executive Director, New York Tuberculosis and Health Association, New York City

In-hospital rehabilitation programs appeared in the early 1930s in TB sanatoria, mental hospitals and convalescent homes for crippled children. As experience accumulated, there was growing recognition in medical circles that social and vocational needs of patients must be treated along with the disease or disability. During World War II, physical rehabilitation received new emphasis in the military services and reconditioning exercises were instituted immediately following surgery or the termination of acute illness.

However, it is in the field of chronic or long-term illnesses that rehabilitation becomes at once more essential and more complex. The hospital must play a key role in the rehabilitation process. Programs in veterans' hospitals greatly enlarged existing patterns; today civilian hospital programs are still expanding, the most recent development being in the general hospital.

Along with the social viewpoint of current medical and hospital practice, certain sociological changes in our population are giving increased emphasis to the role of rehabilitation. We are faced today with an aging population and staggering numbers of chronically ill which are severely taxing hospital facilities in many parts of the country.

At the request of the New York State Joint Hospital Survey and Planning Commission, a comprehensive survey was conducted recently by Dr. Eli Ginsburg of Columbia University. The final report included nine recommendations for action on the State level of which three relate to the development and expansion of rehabilitation and care of psychiatric patients. In the main body of the report, attention is called to the constructive possibilities of rehabilitation in helping bedridden patients to become ambulatory, institutionalized patients to live outside the homes, and those who are solely dependent on others to become at least partially self-supporting.

Hence it can be seen that rehabilitation is a social responsibility and economic necessity for hospitals today. Before outlining the medical benefits of rehabilitation, it may be well to review the basic principles on which such programs are based. First of all, there is common agreement that rehabilitation depends on medical leadership. In an address at the 1948 Annual Meeting of the National Tuberculosis Association, Dr. Norvin Kiefer pointed out the urgency of interesting physicians and enlisting their support in rehabilitation. In his recent book[1] he describes the responsibility and the problems in some detail. All of us should encourage the inclusion of mental hygiene and rehabilitation in medical school curricula and postgraduate courses.

A few other basic assumptions should be mentioned: Rehabilitation should begin early, preferably at time of diagnosis. It is an individualized and democratic process which integrates psycho-social, vocational and medical factors. It involves a high degree of

teamwork and makes the conference method a necessary device for pooling of specialized skills directed at a common goal.

It is not within the scope of this paper to describe the structure and functioning of a hospital rehabilitation program. Out of the diverse types of programs in the different fields of illness and disability, however, agreement has evolved on the basic objectives of a hospital program. These goals include:

1) Orientation of the patient and family to a realistic understanding of the disability.
2) Maximum restoration of functional capacity.
3) Opportunity for constructive, purposeful use of enforced leisure.
4) Assistance with psycho-social problems.
5) Pre-vocational preparation and referral to community resources.

* * * *

I felt some reluctance in accepting this assignment because of the lack of valid statistical evidence of the medical values of rehabilitation. I find myself in agreement with the late Max Pinner who said, "Rehabilitation work is still in the unsatisfactory phase when its necessity is beyond question but its actual results are quite insufficiently known."

For example, in the field of tuberculosis, we have a relatively large body of experience to draw on. Nevertheless, after reviewing and analyzing approximately 1,000 articles on rehabilitation in this field, Dr. Norvin C. Kiefer[1] found the status of statistical studies to be very unsatisfactory. His analysis of the difficulties include such factors as the need for a large sample, complete records, sufficient time interval before follow-up, the difficulty of assigning a status to missing persons, establishing criteria for the control and experimental groups, the need for technically qualified statistical personnel, not to mention the necessary time and funds. However, Dr. Kiefer points out that vocational goals set for tuberculous patients are frequently reached and, therefore, rehabilitation procedures are worth-while. He goes on to state: "The important question to be pondered is, How expensive is the process of rehabilitation? Expense as used in this question is not to be measured in dollars and cents. What is asked is, What is the cost to the patient's life? What is the price in terms of recurrences or relapses of the disease? What additional burden of misery, neglect and unhappiness may thereby be heaped upon the patient and upon the present and succeeding generations of his family?"

While we may lack statistical appraisal of rehabilitation, there is a volume of authoritative information based on experience. Those of us who have had first hand experience in rehabilitation have formed definite convictions, and we can draw inferences from the facts we do have at hand.

In outlining the medical benefits of in-hospital rehabilitation, I think we can make four general groupings:

1) Rehabilitation assists the patient to accept and profit from medical treatment.
2) It aids in solving certain medical and administrative problems.
3) It serves a preventive function with regard to unnecessary relapses.
4) It paves the way for successful post-hospital rehabilitation.

In considering the first of these, it is necessary to look at the psychological impact of illness or disability and the adjustments involved for the patient. We could go back even further and consider pre-illness or pre-accident factors; the growing number of psychosomatic studies are demonstrating the cause and effect relationship between emotional problems and physical illness. However, for our purpose it may be sufficient to recognize that multiple factors of a psychological and sociological nature enter into the cause of disease or accident and must of necessity be considered in the total treatment of the patient.

Certainly the fact of major illness or disability itself affects the psychological, social and vocational functioning of the individual, and the necessary readjustments severely tax his adaptive resources. The patient cannot be expected, without skilled help, to remake his concept of himself, reshape his goals constructively within the framework of the new disability, provide for the care of his family dependents during treatment, and maintain self-confidence about future earning capacity. It is the disability rather than the remaining capacities, which will be uppermost in the patient's mind. In some illnesses, such as tuberculosis, the fear of death is a common — and realistic — reaction to the diagnosis. There is also a natural tendency in any illness to regress to childish dependency, and the sooner this is combatted, the better the ultimate rehabilitation prognosis.

The sooner the patient can be helped with his personal problems, the sooner he can face his illness realistically and profit from medical treatment. Without the enlightened coop-

eration of the patient, surgical procedures, drug therapy or bedrest cannot be fully effective. The fact that emotional tension can produce physiologic changes equal to the moderate activity of the patient who is up and about has been pointed out by Coleman[2] and other physicians. Hence, release from emotional tension is a necessary pre-requisite to treatment which involves bedrest.

Moreover, we have evidence of a definite relationship between morale—the will to live—and physical recovery from disease. A study of personality types in Tbc. patients having one or more relapses undertaken by Wittkower[3] "strongly suggests that speed and chance of recovery depend to a great extent upon his personality, and that sometimes it is safer to assess a patient's prognosis on the basis of his personality and of his emotional conflicts than on the basis of the shadow of the film." The late Max Pinner, a leading phthisologist, stated editorially in the *American Review of Tuberculosis,* August, 1947, that sound prognosis cannot be based on scientific tests and X-ray findings alone. Prognostic judgment must also take into consideration "the less tangible factors of constitution, socio-economic conditions and personality aspects of a psychic nature."

The enforced period of hospitalization can be a constructive or a sterile one for the patient. His energies can be directed into channels which will enlarge his cultural horizon and vocational equipment or they can be allowed to turn inward, creating immediate and future problems for himself and all who come in contact with him.

This brings us to the second contribution of rehabilitation, namely, aid in certain medical and administrative problems. Anyone who has ever had anything to do with hospital administration knows what a single uncooperative patient can mean on a ward. However, patients who have a sense of contentment, an outlet for psychological energy and help with personal problems are not likely to make unreasonable demands of medical and nursing personnel.

We have already referred to the urgency of releasing much-needed hospital beds and the possibility of shortening the hospitalization period. That this is practical even for acute illness can be seen from a study of 645 virus pneumonia cases made by Van Ravenswaay as reported by Dr. Rusk.[4] In the group receiving the traditional treatment, hospitalization averaged 45 days and a 30% recurrence rate; the group receiving progressive physical reconditioning and recreation required only 31 days' hospitalization and suffered only a 3% recurrence rate.

In describing the Bellevue Hospital program in his recent book, Dr. Rusk expresses the belief that the extensive rehabilitation program will mean savings in personnel as well as building costs. He states, "Administrators are inclined, when viewing the personnel needs of a rehabilitation department, to react with skepticism on this point, for they see additional personnel costs in the form of physical therapists, OT's, social workers, psychologists, vocational guidance workers and educators. Balanced against the cost of such personnel, however, are the savings in doctors', nurses' time and other services necessary in definitive medical care, but the greatest saving is in the shortened hospital stay."

Most of you are also familiar with the problem of patients leaving against medical advice to which the Veterans Administration, my own and other organizations have given a great deal of study. All of these studies point to rehabilitation as part of the solution. In 1948, the Rehabilitation Committee of the American Trudeau Society passed the following resolution: "The Committee believes utilization of medical-social and rehabilitation departments constitutes one of the most effective means to reduce the number of patients leaving hospitals against medical advice and advocates that such services be used extensively."

Rehabilitation makes another important contribution to medicine by providing a basis for establishing work tolerance. Bobrowitz[5] points out that by providing supervised, graded physical activity, rehabilitation contributes toward recovery as well as testing out the patient's ability. Dr. A. N. Aitken, in addressing the Annual Meeting of the National Tuberculosis Association in 1942, made the following points:

"Appraising the physical stamina of the patient to stand the strain of normal life is difficult. We have no clinical or mechanical tests to use as reliable measures of work tolerance. . . . Our present recourse, then, is the study of the patient as an individual during his stay in the sanatorium. Close observation will give us an appraisal of his inherent resistance to breakdown from physical effort, nervous upsets, or even intercurrent infection. . . . In order to establish with more surety that a patient can withstand sustained efforts, a period of physical rehabilitation should be followed before discharge of the patient."

The problem of work tolerance, of course, is by no means confined to the field of tuber-

culosis, as it plays an equally important part in almost every type of disability or long-term illness. The collateral value of overcoming the deleterious effect of bedrest need hardly be mentioned. The sooner physical reconditioning can start, the less muscular and mental atrophy develops during extended hospitalization.

Many authorities in the tuberculosis field have pointed to the preventive aspect of rehabilitation as a means by which morbidity and mortality can be lowered. This, of course, is equally true in the fields of rheumatic fever and other relapsing conditions. If a patient is discharged from the hospital to return to the same work or living conditions which precipitated the original breakdown, the hospital has scarcely discharged its responsibility or insured the permanence of its therapy. The value of rehabilitation to the patient himself is readily recognized by all. But savings to the community in terms of repeated financial outlay for rehospitalization needs to be vigorously interpreted to the general public.

We now come to a fourth value of in-hospital programs which has particular meaning for rehabilitation specialists, namely, early casefinding. Rehabilitation workers everywhere share this concern because the rehabilitation prognosis, like the medical prognosis, has an inverse ratio to length of time elapsing between diagnosis and treatment. The longer the patient is allowed to settle into a pattern of chronic dependency, the slimmer the chance for full restoration. Dr. Bruce R. Merrill, in one of the Office of Vocational Rehabilitation Staff Development Aids,[6] phrased it this way: "It is my feeling that you should see the patient as soon after his admission as possible. This is the time when he most needs support and the time when he will most actively reach out for your help. Every hour that goes by after this admission is a strike against you in this regard."

Rehabilitation casefinding should be the first objective of any hospital program, according to Kenneth Hamilton[7] in his excellent textbook on rehabilitation. He points out that the hospital is only one phase in the process of rehabilitation. He states: "The patient who is discharged without a social plan is discharged into a vacuum. Handshaking and well-wishing to the departing patient are gratuitous if they are not based on a more substantial plan for the future."

Moreover, the controlled environment of the hospital with its 24 hour supervision of the patient provides the ideal conditions for a social study. The hospital is in a unique position to evaluate individual needs and make referrals to appropriate community agencies. It has both the opportunity and the responsibility to mobilize help for the patient during the critical post-hospital convalescence.

On the other hand, we might ask: What is the responsibility of the community agencies toward hospitalized patients whose needs fall within their function? Specifically, what is the responsibility of the State rehabilitation agency for starting work with the patient when he is most easily reached and most "ready" for counseling? Increasing numbers of State counselors are doing just that; it is to be expected that as personnel increases, this emphasis in the official agency will also grow. Insuring the continuity of the rehabilitation process from the hospital to post-hospital period is a vital function which must be shared by the institution itself and the outside agencies.

To summarize, we have covered four important areas of contribution which rehabilitation makes to medical treatment. First, we have specified the ways in which rehabilitation increases the effectiveness of therapy by assisting the patient to accept and profit from medical treatment. Second, we have outlined certain contributions to medical and administrative problems. Third, the preventive function served by rehabilitation was mentioned. And finally, the hospital serves a casefinding function in rehabilitation which prepares the way for the post-hospital adjustment of the patient. The close interrelationship between social and medical treatment has been stressed. How this is actually carried out in given institutions will be described by the speakers who follow me.

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Appraisal of Physical Capacity in Determining Feasibility for Vocational Activity

BERNARD D. DAITZ
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Lord Horder is reputed to have commented upon the confusion which exists in some areas of rehabilitation with the statement, "Reconditioning and rehabilitation are in the air; with many folk who pay lip service to these ideas, they remain in the air." [1] Those of us who have followed the progress of the physically impaired individual through his slow and uncertain experiences in the rehabilitation process toward its ultimate goal, productive employment, can well appreciate the appropriateness of Horder's remark. Not a little of the frustration and uncertainty experienced is related to the complex physiological problem of testing physical fitness.

Such terms as *work tolerance, work capacity, physical capacity,* and *medical feasibility* are well known to all of us; their precise meaning, however, is obscure. They presume to express the ability of the handicapped person to engage in physical activity . . . work . . . a job. Rarely, though, are these expressions qualified to suggest specifically the *kind* of activity for which the patient has *tolerance* or *capacity,* or how much of this activity the patient may safely undertake.

In many instances, evaluation of *work tolerance* has been made on the basis of walking exercise. Other tests of physical efficiency and fitness have been suggested.[2, 3] Tegner[4] has stated that there is no simple test which can adequately reflect the cardiac, respiratory, and psychological factors which are involved in the appraisal of physical fitness. It is entirely possible that one day we will discover the basic physiologic factors which will lend themselves to quantitative measurement. Meanwhile, it is not surprising that many patients with residual disability such as we find in tuberculosis, heart disease and epilepsy, to mention a few of the disabling diseases, are discharged from the hospital and return home without an understanding of their disability and even less of their residual capacity. They *do* know that they must "take it easy," but such a prescription is far from being a measurable constant.

Such ex-patients are problems to themselves, to their families, to rehabilitation workers who can form no valid opinions as to the degree of residual capacity which the patient may have, and to the prospective employer who cannot be expected to hire someone who is physically impaired but whose physical capabilities are unknown. Here we have the necessary ingredients for failure in the rehabilitation process.

This is the problem or at least one of the problems for which some of us concerned with the Physical Medicine and Rehabilitation Program in the Veterans Administration have been attempting to find answers.

Our first discovery was that any evaluation of physical capacity was meaningless unless based upon the study of not only vocational activity but *all* the activity in which the patient engages during a twenty-four-hour day. Not long ago I was an interested observer sitting in on a rehabilitation case conference. The patient whose history was being reviewed was being treated for tuberculosis. The various members of the hospital staff who had been working with the patient reported on the specific therapeutic measures which they had been responsible for carrying out. Each stated the amount of time the patient had spent daily in the particular therapy. Impressed by the amount of physical activity in which the patient was obviously participating, I innocently inquired whether anyone could tell me how much time the patient was out of bed. I was not surprised at the puzzlement which I apparently created. No one had been looking at it just that way, and I therefore seized upon the opportunity to explain that an appraisal of physical capacity must include consideration of four classes of activity:

1. Self-Care (which includes dressing, grooming, bathing, eating).
2. Recreation (including participation in active or passive forms of leisure-time activities, movies, games, sports, hobby crafts).
3. Vocational (involving activity which is directed toward productive employment or organized study).
4. Sleep and Rest.

The average normal person if he is gainfully employed spends approximately ten hours at his job and getting to and from it. Self-care activities require approximately three hours daily. Sleep and rest, about eight hours, leaving three hours for recreation.

This is the framework upon which we can construct our physical capacity appraisal. It is a dynamic and practical technique. It can be varied by the physician to suit the particular interests of the patient, thus providing the necessary motivation and, equally important, furnishing the means for helping the

patient to obtain an understanding of the meaning of activity. Because the activities can be varied in type, amount and intensity, increasing or decreasing the various elements as required, the physician can utilize this technique as a reconditioning measure, as well as for the appraisal of physical capacity.

A few illustrations may be helpful: The bedfast patient who is acutely ill is generally limited in the amount of physical and mental activity which he can undertake. More often than not, he is not interested in doing anything. As his condition improves, he becomes more aware of his surroundings, time begins to have some meaning, his appetite improves, he finds himself able to feed himself, read the newspaper and listen to the radio. Thus, we have the patient engaging in self-care and recreation, activities which involve physical as well as mental effort . . . work.

Steadily the patient's condition improves, he is permitted to get out of bed, have his meals sitting up and out of bed, and even to take a short walk around the room or into the corridor. He is doing more, but essentially in the self-care and recreation categories of our classification.

Up to this point, no special equipment is required. Nor is there anything strange or novel about the activities. This does require some qualification. Special functional training and appraisal procedures have been developed for the orthopedically impaired patient, the hemiplegic, paraplegic, quadriplegic, the patient with residuals of poliomyelitis, the amputee and the cerebral palsied.[5, 6] These are of course concerned with therapy and evaluation of motor activity. On the other hand, treatment and appraisal of the cardiac and the tuberculous patient must be related to the effects of metabolic demand.

It is in the area of testing physical capacity for vocational activity that difficulties are encountered. One important reason is that in too many instances a realistic rehabilitation objective is never established or its formulation is delayed too long. Without some idea as to the goal towards which the rehabilitation process is to be directed, positive and purposeful measures cannot be initiated.

The second reason for difficulty lies in the problem of providing vocational activity in a hospital or clinic setting. Here the matter of expense is an important factor. If we attempt to follow the principle of setting up realistic industrial processes, we can immediately expect that an infinite variety of equipment will be needed, as well as therapist personnel who are qualified to guide the patients in the details of its operation. Space also becomes a problem.

In the development of the Manual Arts Therapy Program in the hospitals of the Veterans Administration, the difficulties which I have mentioned soon became apparent. The Light Mechanics Procedure[7] is the result of our efforts to develop a standard set of industrial operations which can be carried on within a hospital or clinic, providing a wide range of job situations with a minimum of equipment, material and personnel.

As its title implies, the Light Mechanics Procedure is designed to include the basic industrial processes which are generally found in manufacturing small tools, instruments, gauges, electrical appliances, toys, firearms and similar products. It also covers repair and adjustment operations. In developing the various job units which comprise the Light Mechanics Procedure, careful study was made of the physical demands which were found to be inherent in each of the operations. In this way we were able to standardize the job units as well as the physical demands which were involved.

The Light Mechanics Procedure consists of four parts. Part I is the Preliminary Job Series. This is used primarily for screening, for it not only enables the therapist to determine whether or not the patient possesses the aptitude for this type of work but the two jobs which comprise this job series involve all the physical demands which will be encountered in each of the other jobs which make up the Light Mechanics Procedure. For the entire series, the physical demands are relatively constant. The variables are participation time, rate of production and relative complexity of the jobs. With such standardization, it is obvious that both as conditioning therapy and appraisal, the Light Mechanics Procedure can provide practical job situations, permitting measurable increase in physical demands only with respect to participation time and production rate. In this way, it may be said that the patient who is able to spend four or six or eight hours at this work, over a reasonable period, maintaining a rate of production comparable to that expected in industry and showing steady improvement in his medical status, has the physical capacity for a like number of hours in any one of the large number of jobs in industry which have similar physical demands.

The first job in the Preliminary Job Series requires that the patient make a wire eye

loupe holder. Its purpose is to demonstrate the correct usage of certain types of pliers in forming wire. The operations involve the use of files to cut grooves across round wire stock, forming, bending and twisting wire stock, cutting stock with cutting pliers, and adjusting the eye loupe holder. These operations are applicable to many jobs in various industries in which shaping and adjusting wire springs, connectors, and supports are involved. In order to be able to perform these operations, the patient must meet certain minimum physical demands requirements, such as being able to sit upright, have a minimum of 20/40 vision in each eye, with or without correction, have complete flexion of fingers, able to squeeze 60 pounds' pressure with one hand, be able to lift a 20-pound weight from the work bench drawer to the lathe bed. I cite these as examples, for the actual list of minimum physical demands is too lengthy to warrant further discussion and elaboration.

The second job of the Preliminary Unit involves working with round plates which have been drilled, tapped and counter-bored to receive tiny fillister-head screws. This job is designed to test the capacity of the patient for working with extremely small parts, and requires a great degree of fine muscular coordination. These activities are applicable to many phases of industry, both in the production line and in the small repair shop which are concerned with the manufacture and repair of pressure gauges, electric meters, cameras, business machines, watches and optical equipment. The therapist in presenting this material to the patient ordinarily demonstrates the procedure to be followed, permitting the patient to use the instruction pamphlet for reference. The patient is then permitted to carry out the operations, with the primary emphasis placed on following the instructions relative to technique. Obviously, at first the patient will find that he must work slowly in order to achieve the end results. When he has completed each of the jobs, he may be asked to repeat the operations any number of times, first, to determine whether he can attain a rate of production approximating that in industry and, second, to increase the amount of his participation time. When the therapist has determined that he has the necessary information regarding the patient's capacity for this work, he may start the patient on Part II of the Light Mechanics Procedure, which is concerned with Precision Adjustment, or on Part III, which involves Precision Turning. The actual choice of one of these two series will depend largely on the patient's ultimate rehabilitation goal, as well as upon the interest and aptitudes which the patient has shown in the course of his work with the Preliminary Job Series.

The Precision Adjustment Job Series consists of six jobs and involves primarily hand adjustment work with very small tools and parts. The balance-wheel unit of a watch is used as the subject material, inasmuch as the principles which are involved are applicable to most mechanical wheel movements.

Time will not permit me to go into much more detail than this.

As regards the Precision Turning Job Series, the activities are designed to provide the patient an opportunity to perform work involving elementary skills and knowledge peculiar to metal turning jobs. The work is, of course, basic to a wide variety of industries which are concerned with the manufacture of surgical instruments, knives, and tool and die making. There are seven jobs which comprise this series, ranging from sharpening hand gravers to the fabrication of an anchor bolt. As with the Preliminary Job Series, there are no set rules as to the number of times a patient must repeat any one of the jobs. This is a matter which is determined by the physician and the therapist, and is generally predicated upon the therapeutic purposes desired.

A few words may be appropriate at this time to emphasize the fact that neither the Light Mechanics Procedure nor any of the other activities comprising the Manual Arts Therapy or Educational Therapy Programs in our hospitals are directed at vocational training of patients. The primary purpose is therapy and evaluation. If, incidentally, the patient is able to learn a technique or acquire knowledge in a particular subject field, these are secondary. We feel very strongly that vocational training can best be accomplished outside of the hospitals, in schools which are organized for that specific purpose. It should also be pointed out that in designing the Light Mechanics Procedure there was recognition of the principles of production in industry, whereby an employee performs only certain operations and rarely is called upon to perform all of the operations necessary to fabricate a product. Thus, with notable exceptions, a worker does not make a lamp or construct a piece of furniture or a radio or typewriter. It will be noted that when a patient has completed the Light Mechanics Procedure, he has nothing to send home or to sell.

The Light Mechanics Procedure was de-

veloped over a period of approximately two years. From the time that its principles were conceived, an infinite amount of study was necessary in order to select the basic activities which have been included in the Job Units. The procedure is being introduced into our hospitals slowly and only after the therapists who are to use this technique have received proper indoctrination. While we believe that experience with it will justify our expectations, the procedure is being subjected to very careful study. Obviously, the Light Mechanics Procedure covers only a segment of industry. Similar procedures remain to be developed in the areas of Medium and Heavy Mechanics. There is also the field of construction and building trades, including woodworking, to mention but a few of the many areas of industry for which standardization similar to the Light Mechanics Procedure may be indicated. For the present, we are encouraging our hospitals to utilize activities which are carried on in the various services of the institution, such as the Utility Unit, which is concerned with plant maintenance and includes work in plumbing, electrical maintenance, motor maintenance, structural maintenance; the various administrative offices of the hospital, where a variety of clerical work is carried on; the laboratories, including photographic darkroom, where a patient whose vocational objective lies in these fields may be sent for evaluation.

Finally, mention should be made of the activities which are carried on in our Educational Therapy Program. Here, activity situations are set up for patients who are planning to return to school following discharge from the hospital, for study in academic or commercial fields. Here again, while it may be true that the patient derives familiarity with his subject fields, from the physician's standpoint, Educational Therapy and the activities which are prescribed serve as a means for reconditioning, as well as testing physical capacity.

In summary: In the formulation of plans for the treatment and rehabilitation of physically impaired patients, it is essential that a rehabilitation goal be established as early as it is possible to do so, following admission to the hospital. Only when such a goal has been formulated can the rehabilitation process be outlined in a purposeful manner. In evaluating physical capacity, we are dealing with a complex of physiologic functions, which are closely inter-related. For this reason, the use of step tests, treadmills and allied procedures provide only a partial clue. A more reliable index of physical capacity can be obtained by following the reaction of the patient over a period of time to realistic activities which he may normally be expected to participate in during a 24-hour day. These are included in the following general categories: self-care, recreation, vocational activity, sleep and rest. Of these, vocational activities are usually the more difficult to explore in the hospital or clinic. Equipment, space and personnel are the major obstacles. In the Light Mechanics Procedure, we have a practical solution to these obstacles.

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The Rehabilitation Program in the General Hospital

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Although the need for rehabilitation services is obvious and well recognized, it applies especially to a general hospital. It counteracts some of the less desirable effects of specialization on the care of patients. In a large impersonal institution coordination of the services increases the stature of the patient as an individual and results in his being the focal point of the combined efforts of the specialists, non-professional personnel, and ancillary services of the hospital.

The conscientious doctor is restrained

from performing most effectively in his proper capacity by the non-medical details which arise in the course of caring for a patient. A rehabilitation service insures the use of the non-medical services of the hospital for the patient's benefit and for the more effective operation of existing medical personnel.

The successful rehabilitation program should create among students and staff the attitude that the patient should become a productive member of society rather than a pathological exhibit, thus anticipating the problems attendant upon widespread health insurance and medicine in the overall socio-economic plans of the future.

Finally a rehabilitation plan considers the psychology of illness by offering an early orientation to disability and neutralizing the excessive dependence which a hospital atmosphere may create in a patient.

A rehabilitation plan in a general hospital can be established but the outlined aims are not realized immediately. The prime requisite of such a program is an interested physician. Although an experienced lay person could run a program as well if not better than a physician, in most hospitals it will be found necessary to have a physician at the head of the rehabilitation group.

Secondly, a broad plan for the education of the staff should be functioning. It is necessary to recognize and reward individual ingenuity for one can never tell from what source in the organization the solution to an individual problem may spring. Optimal use must be made of preexisting conferences and rounds. The creation of special conferences is usually not as effective as introducing the orientation of rehabilitation into those conferences which are primarily concerned with other aspects of patient care. Unfortunately, the social and economic state of the family is a topic which may seem irrelevant to the ponderous considerations of the pathological physiology of some exotic disease.

It is frequently difficult to obtain patients who are suitable for rehabilitation services. This is especially true in a large hospital. One method of obtaining patients is to scrutinize the referrals to social service for suitable material. More satisfactory, however, is the institution of rehabilitation rounds. Thus a staff physician and house staff member may visit the hospital wards and search for rehabilitation problems. Not only does this facilitate case finding but it also has an educational value for the staff. Such a plan also has the value of including the house staff in the rehabilitation program. The establishment of a parent clinic plan in the out-patient department will help effect the aims of rehabilitation.

Finally, the organization of a committee in which rehabilitation activities can be centralized is a necessity. A physician chairman should have on his committee representatives of the departments of Physical Therapy, Social Service, Nursing, Occupational Therapy, and a vocational advisor. Consultants to the committee should include the doctor in charge of the patient under consideration, and representatives from the departments of Orthopedics, Psychiatry, Neurology, and other selected specialties. The committee should accept referrals and sit at intervals to consider the problems brought before it. It should represent a central agency to which rehabilitation problems can be referred. All of these need not be considered individually by the committee but the referring doctor needs a simple means of dealing with such problems without being concerned with details.

The following case report is an example of how the services of a large hospital can be coordinated to produce an effective rehabilitation result. It will be noted that the only special organization involved in the proceedings was the Rehabilitation Committee. The action was instigated at this level and the individuals concerned carried on in a concerted effort oriented solely to the benefit of the patient.

The patient was a 25-year-old student nurse who had suffered a stormy bout of acute poliomyelitis. The details of her medical illness also involved coordination of staff activities but are considered to be irrelevant to the present discussion. Upon recovery the patient was left with complete paralysis of the legs and marked involvement of the arms. She was confined to a wheel chair. Having been interested in flying, athletics, marriage, and her nursing career, after her illness she considered her complete recovery inevitable and made her plans, ill defined though they were, to include a normal marriage and the usual housework. She refused to take into account the potential limitations of her illness. Her constructive activities were non-existent and even diversion was minimal. Attempts to find out hidden interests were futile. The patient was presented to the Rehabilitation Committee as a problem. The medical, social, vocational, and emotional factors were brought out. The representative of the State Department of Vocational Rehabilitation

introduced for discussion the idea of medical record library work for the patient. Then through the individual efforts of nurses, social service workers, physiotherapy, friends, and the hospital record room librarian the patient was encouraged to visit the hospital record room and observe the nature of the work. The hospital occupational therapist arranged with the International Business Machines for the loan of an electric typewriter and embarked upon a program of teaching typing to the patient. The hands were too weak to operate an ordinary typewriter but could press the keys of a properly adjusted electric typewriter. In about two months the patient began to accept the possibility of record librarian work. Upon discharge from the hospital the patient could type 50 words per minute and was able to obtain a training position in a hospital record room near her home. Approximately one year after the onset of her illness she was walking with a cane and was actively engaged in her record room work. It should be emphasized in this instance that the patient was an intelligent mature person.

DISCUSSION

Disinterest on the part of the doctors and difficulty in case finding inhibit the work of a rehabilitation service. Not until a patient becomes a desperately difficult rehabilitation problem is he referred to the rehabilitation service by the average doctor. Thus rehabilitation may be obstructed simply by the hopelessness of the case. This in turn leads to discouragement on the part of the referring doctors. In addition the average alert doctor is oriented to medical problems from the scientific standpoint constantly demanding controls and asking the question "How do you know the patient would not have accomplished this by himself?" These questions are essentially irrelevant when we are dealing with members of human society. Some of us should view the patient in terms of his socio-economic as well as his physical status, because social trends force us to consider this aspect of medicine.

Patients look with some distrust upon rehabilitation services. It must be recognized by those working in the field that successful rehabilitation efforts may not produce a grateful patient. This should not be expected. Frequently successful rehabilitation of a sick patient will result in a smaller salary, less desirable work, and the emphasis of certain defects in the patient which he has not had to face before. The aim, however, is successful rehabilitation of the patient and not the personal satisfaction of the rehabilitation group.

In a general hospital the diversity of disabilities encountered make ineffectual one of the most important tools in rehabilitation. That tool is group activity or group therapy. Many of the visual aids and the class room technique which can be used in large groups with the same disease process are useless. This, of course, makes rehabilitation expensive and time-consuming. However, coordination of services, use of existing hospital facilities, and adequate connections with outside agencies go far towards solving some of these problems.

In conclusion, emphasis of good results and an adequate local publicity program is desirable. Not only because it may facilitate the work of the rehabilitation group but because hospitals can and should be leaders in community rehabilitation activities.

The Rehabilitation Program in the Tuberculosis Sanatorium

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It is commonly agreed that the medical, surgical, nursing, and public health aspects of tuberculosis control in up-state New York have reached a high degree of effectiveness. It is equally well recognized that the personal, socio-economic, emotional, and domestic, educational and vocational rehabilitation aspects of tuberculosis control have not reached a similar degree of excellence. A study was undertaken to correlate the need for rehabilitation services with the availability of such services. The study was given impetus by three factors: a) A high percentage of discharges against medical advice; b) A high readmission rate, and c) A too large percentage of the patients admitted so sick that it is futile to expect a clinical recovery. Therefore, any program which would bring about the admission of patients at a time when their disease is amenable to definitive therapy and would assure an adequate duration of hospitalization and reduce discharges against advice, would contribute significantly to the effectiveness of tuberculosis control.

It was obviously impossible to interview all of the 5,000 persons hospitalized in the public sanatoria in up-state New York; therefore, four were selected as representative samples. The composite picture resulting from a study of these four should be applicable with minor alterations to any civilian

tuberculosis hospital. One was selected as a typical example of a small sanatorium serving a truly rural area; another was selected as an example of a large sanatorium serving a densely populated suburban community; a third was selected as an example of a medium-sized sanatorium serving principally a large up-state city, but including the immediately surrounding suburban and rural areas; the fourth was selected as a medium sized hospital serving primarily a group of rural counties, but staffed to do highly specialized work for other tuberculosis hospitals and also treating some patients from our two large metropolitan areas, Buffalo and New York City.

The data obtained include the following: The patient's age; sex; marital status; principal diagnosis; medical prognosis for arrest of disease; the attained educational level; the employment experience; the presence of clearly apparent socio-economic, emotional and domestic problems; the patient's expressed desire for occupational therapy, educational services, medical social work, and the various types of vocational counselling and training. The detailed data were obtained from the medical records of the selected hospitals and from conferences with the ward physician. The patient himself or herself was interviewed by a trained person, and then finally a case conference was held at which the problems of each patient were reviewed with the hospital administrator, the ward physician, the hospital nurse, a social worker, an advisor on rehabilitation, and a vocational rehabilitation counsellor. When the individual hospital did not have these personnel available, the services of persons of proven ability were made available to us. The case conference attempted to reach a group opinion as to the nature of the problems presented by each patient, and those basic services which would be necessary to resolve them.

At the time of the study there were 715 patients in residence at the four hospitals; 422 were males and 293 were females. Five percent of the group were either non-tuberculous or had non-pulmonary tuberculosis. Ten percent were classified as having minimal pulmonary tuberculosis, 35% were classified as moderately advanced, and 50% had far advanced tuberculosis. Seventy-five percent of the female patients were under 40 years of age, whereas 40% of the male patients were over 40 years of age. In general the male patients are in the older age groups and have predominantly far advanced disease, whereas the female patients are in the younger age groups and have less extensive disease.

Part of the 715 patients were not interviewed because they were not in a suitable medical condition for this purpose. There were 207 patients who had an unfavorable prognosis and were too ill for interview. There were 90 additional patients whose prognosis was uncertain and were not considered appropriate for interview. Thirty-six persons who had non-tuberculous disease or non-pulmonary tuberculosis were deliberately omitted because of the small number and presented special problems not pertinent to this study. This left a net of 400 persons who were intensively studied.

Slide No. 1 indicates the attained educational levels of the group. There were 37 who had less than sixth grade education, an additional 78 who had less than an eighth grade education, and an additional 116 who had not completed high school. Since most of the occupations in which a tuberculous ex-patient should engage after completion of hospitalization require not less than the equivalent of high school, the basic problem of educational needs is at once apparent. The average attained level of the entire group was two years of high school.

It should not be inferred from this slide that it is believed that all the patients having less than high school education should participate in an education program. For reasons of age, language difficulty, lack of native mental endowments, and also lack of some patient interest, a number had to be excluded in arriving at a realistic appraisal of this problem. Slide No. 2 will reveal the actual educational needs both as expressed by the patient himself and believed appropriate by the case conference. Of the 400 patients studied, 188 both needed, wished for, and could profit by an education program. Your particular attention is invited to the 66 who are interested in prevocational education but not specifically in grade or high school subjects. This consisted of refresher on-the-job training that can be given in a tuberculosis sanatorium in the X-ray laboratory, clinical laboratory, medical record room, business office, etc., and by correspondence courses meeting a specific need.

There is a special group which does not need formal education or vocational training in the usual sense of the term. It is our impression that this group has been largely neglected by the experts in the field of rehabilitation. A large percentage of our female patients are actual or potential house-

wives. They have been neglected presumably because the work of a housewife is not considered a remunerative occupation. A casual study will reveal that homes are arranged principally for appearance, conditioned by tradition, rather than for convenience or the conservation of physical energy. Cornell University has published a number of pamphlets on this subject. It would appear feasible to consider the employment of a special teacher in homemaking so that families can arrange their homes for conservation of physical energy so necessary in our tuberculous ex-patients and the patient receive proper instruction in the care and feeding of children, in the purchase and utilization of material for the homes, so that money is not wasted. Naturally such courses in home making would not be given for academic credit, but with the utilitarian purpose of making the work of the homemaker easier, more satisfying, and less demanding on both the physical and financial resources of the family.

Slide No. 3 will reveal the personal and socio-economic problems as uncovered by a single interview. It is believed that these problems do not represent the total picture and that a more thorough knowledge of each patient would uncover more than is here shown. In a group of 400 patients we have a total of 259 obvious problems which merit the attention of a skilled medical social worker. A resolution of these problems must be achieved if the patient is to obtain the maximum benefit from the medical treatment program and to enable the patient to achieve that degree of mental and emotional poise which will permit him to remain in the hospital until he can be discharged with maximum benefit. It should be noted that 187 patients present 259 problems and that an estimation of the case load should be made not on the basis of number of patients but rather on the volume and diversity of problems which they present.

The group of 400 patients was also intensively studied in the case conference with respect to the need for and ability to participate in the various aspects of vocational rehabilitation. It was assumed that the total program of rehabilitation should start as early as the medical condition of the patient would permit so that as the convalescence proceeded, the patient could engage in activities which would contribute to his return to a normal community life. Twenty-five percent of the group did need complete analysis as to the individual's interests, capacities, and potential, which is usually called testing and counselling. Approximately 50% needed no specific assistance in order to return to satisfactory employment and the other 25% needed partial assistance, as indicated in Slide No. 4.

It is fully appreciated that not all of the vocational rehabilitation program can be completed within the hospital and therefore Slide No. 5 will indicate the need for post hospital referral for further training. In arriving at this estimation, we are indebted to a rehabilitation counsellor from the Division of Vocational Rehabilitation of the State Education Department. Twenty-five percent of the patients studied showed an interest in and could profit by referral to the Division of Vocational Rehabilitation. There is an additional 10% who need special post-hospital assistance, but who would not be eligible for referral to the D.V.R. under existing laws and regulations.

Approximately 10% were veterans and presumably could obtain any necessary assistance by referral to the Veterans Administration.

All of the foregoing has dealt exclusively with the patients' needs. In order to determine what services were available, a visit was made to each of 14 public tuberculosis hospitals in up-state New York having more than 100 beds. Those sanatoria having less than 100 beds were deliberately omitted because it was realized that they could not be expected to have the rehabilitation services on a purely economic basis. In the 14 there were only one or two tuberculosis hospitals that could be said to have a satisfactory program. It would seem entirely logical to predicate that the basis for an adequate rehabilitation program is an adequate occupational therapy, adequate medical social work, and adequate grade school, high school, commercial and home-making teachers. Until these services have been provided, the vocational counsellor and the rehabilitation counsellor, and the other highly specialized workers in this field cannot be used to even reasonable advantage.

The study of the 14 hospitals reveals that there is an exceedingly wide variation in both quality and quantity of services available. Only two of the 14 hospitals had more than one occupational therapist, and two others employ inadequately trained persons. The ratio of patients per therapist varies from a low of 32:1 to a high of 330:1.

Four of the 14 hospitals have no social worker, and one has a half-time worker. For the balance the patient-worker ratio varies from a low of 138:1 to a high of 450:1.

A similar situation is found with respect

to teachers with the patient-teacher ratio varying from 60:1 to 425:1. The only conclusion possible from these data is that the program of rehabilitation services is so inadequate that it should be regarded as nonexistent.

In addition to the above, each hospital director was asked, "By whom is the job-counselling done?" and "Who is in charge of patient recreation?" The answers varied all the way from volunteer workers, interested patients, occupational therapists, medical social workers, staff physicians, tuberculosis associations, representatives of D.V.R., and hospital director. With such a variety there is and can be no consistency to the services which are offered to the patients.

To this audience, which has a thorough knowledge of and a deep interest in rehabilitation services, it would be impertinent to attempt a discussion of the various duties, the scope of the work, or qualifications for the various members of the rehabilitation team. However, one or two remarks might enable us to proceed to the crux of the situation. The literature on this subject is replete with essays of a general nature and carry an overtone of exhortation, but to date there has been little that would be of assistance to the hospital administrator who is faced with the very practical problem of organizing a program with sufficient clarity and detail to obtain from appropriating bodies the necessary funds so that personnel can be hired to implement a reasonably satisfactory program. There has recently appeared in the August issue of the *American Review of Tuberculosis,* a ten-year evaluation of the Philadelphia program by Langton and others which does give factual data to support the thesis that an adequate program will reduce the discharges against medical advice and will increase the earning power of patients discharged from our tuberculosis sanatoria quite out of proportion to the cost per person of such a program.

All of the foregoing data was studied carefully with due allowance for variations in amount of tuberculosis, favorableness of prognosis, and ability to participate in the general rehabilitation services. An attempt was made to balance these various factors and to translate them into the number of patients per hundred on the hospital census who not only should but can participate in the various types of services. In addition an effort was made to estimate the case load per worker on a conservative basis. These data have been combined into Slide No. 6 with the hope that this would be useful in planning at least a reasonable start toward a rehabilitation program or make a basis therefore. Since this study has been recently completed, time will have to determine whether the estimations herein given are useful to the hospital director in his negotiations with appropriating bodies. It is presumed that some will not agree with the correlation as here presented, but it could at least serve as a start with the future to determine the extent to which it is practical.

I.

ATTAINED EDUCATIONAL LEVEL
PATIENTS WITH A FAVORABLE PROGNOSIS
PULMONARY TUBERCULOSIS

Grades 0 - 6	37	M	25
		F	12
Grades 7 - 8	78	M	49
		F	29
Attended High School. Did not graduate	116	M	62
		F	54
High School Graduate	156	M	71
		F	85
Not Stated	13	M	8
		F	5
Total	400	M	215
		F	185

Trade School or Vocational School Without High School Diploma	25	M	17
		F	8
Academic Courses beyond High School	79	M	44
		F	35

Average Attained Educational Level was 2 years of High School.

II.

EDUCATIONAL NEEDS

188 Patients present 236 Needs for Educational Training.

Grammar School	8
High School	69
Prevocational Education (Not Grade or High School)	66
Commercial	24
Home Making	69

III.

SOCIO-ECONOMIC PROBLEMS

Domestic Problems	34	M	15
		F	19
Personal Problems	71	M	50
		F	21
Psychiatric Problems	22	M	15
		F	7
Alcoholic	13	M	12
		F	1
Other	2	M	—
		F	2
Financial Problems	117	M	69
		F	48

These Problems were presented by 187 Patients.

IV.

VOCATIONAL REHABILITATION NEEDS

AGE	Sex	TOTAL	Complete Retraining	Partial Training for New Occupation	Partial Training for New Job in Present Occupation	Refresher Aid	Counselling Only for Change in Employment	No Occupational Change Recommended
All Ages	T	400	108	16	21	11	40	204
	M	215	56	11	13	4	33	98
	F	185	52	5	8	7	7	106
0 - 29	M	64	40	6	5	—	2	11
	F	108	40	4	6	6	2	50
30 - 49	M	87	15	5	8	3	16	40
	F	68	12	1	2	—	5	48
50 and over ...	M	64	1	—	—	1	15	47
	F	9	—	—	—	1	—	8

V.

POST-HOSPITAL REFERRAL

AGE	SEX	TOTAL	Division of Vocational Rehabilitation	Vocational Rehabilitation (Not D. V. R.)	Veterans Administration	Home Making	None Needed
All Ages	T	400	118	37	36	75	134
	M	215	57	21	36	—	101
	F	185	61	16	—	75	33
0 - 29	M	64	28	3	20	—	13
	F	108	44	12	—	34	18
30 - 49	M	87	26	9	11	—	41
	F	68	17	3	—	38	10
50 and over	M	64	3	9	5	—	47
	F	9	—	1	—	3	5

VI.

CORRELATION OF NEEDS WITH RECOMMENDATIONS

Type of Service	Patients Needing Service (per 100 Census)	Recommended Case Load/per Worker
Occupational Therapy	90	75 - 100
Medical Social Service	47	75 - 100
Grade School Education	15	20
High School Education	17	20
Commercial Courses	7	20
Home-making	25	20
Vocational Counselling and Testing.....	27	60 - 80
Total Referral for Post-Hospital Vocational Training.....	26	?
Referral to D. V. R.....	15	?

The Rehabilitation Program in the Hospital for the Mentally Ill

HILAND FLOWERS, M.D.
Chief of Neuropsychiatric Service,
Veterans Administration Hospital
Bronx, New York

In discussing the rehabilitation program in a hospital for the mentally ill before members of the National Rehabilitation Association I know it is unnecessary to stress the importance of the subject. The ever increasing number of people who break down with some psychiatric condition or other is a ringing indictment of our culture and civilization. I believe we, as citizens, should pause and consider whether or not we are paying too high a price for so-called modern advances. No one can live or work in a mental hospital without being shocked at the number of promising individuals who have been hurt and driven into a mental disorder by attitudes of the family and others engendered by the pressures and competitions of our civilization. So, before settling down to a discussion of the hospital program for treating the mentally ill, let us bear in mind that serious thought must be given to prevention and mental hygiene.

At the Veterans Administration Hospital, Bronx, we feel that the program of Rehabilitation begins when the patient enters the door of the hospital. It has been found that maintaining a warm, friendly atmosphere on the ward is extremely helpful to all types of patients. We have repeatedly seen acutely disturbed psychotic patients change for the better under the friendly and sympathetic care of nurses and attendants and other personnel. We have even had two or three patients so regressed that they were admitted for prefrontal lobotomy become adjusted to the point where they returned to school or work without operation. The improvement of these cases we felt was brought about chiefly by the friendliness of the hospital personnel.

This sympathetic atmosphere does not come about of itself. We give almost continual lectures and conferences on psychiatric topics to ward personnel and we even give indoctrination lectures to the hospital guards. We feel that these lectures are helpful in improving the understanding of personnel. We also try to make the wards homey by drapes, pictures on the walls, games and books.

The problem of rehabilitating the mental patient has many facets and the patient himself has many avenues of approach. Oftentimes the patient will remain aloof from the psychiatrist yet become friendly with the corrective therapist or he may seek the comfort of a mother figure and approach the nurse for help.

For these reasons it is necessary for the psychiatrist to obtain all the help possible from other disciplines and skills than his own. The Social Service worker, the psychologist, the corrective therapist, the manual arts therapist, the occupational therapist, the vocational guidance counsellor, and the physiotherapist all have much to contribute to the rehabilitation of the mentally ill patient. And though the list of active workers seems long there is still room for volunteer workers. As a matter of fact the entire hospital is attuned to the proposition that rehabilitation must be accomplished in all patients if at all possible. The old idea of curing the illness only is as dead as the Dodo.

The patient, however, knows nothing of this. He regards himself as the problem and is little concerned with general principles or processes. At the Veterans Hospital, Bronx, we have had some gratifying success in helping mentally ill patients adjust and return to productive work and I would like to mention some of the principles we feel have been useful.

In the first place, we place the responsibility for the psychiatric care and rehabilitation of the patient directly on the psychiatrist. He is given to feel that he must manage the case as well as give psychotherapy; that he must obtain every possible help; that he must consult with and use the services of all who have something to offer the patient. The psychiatrist understands that others are as interested as he is in helping the patient and that others have skills and special knowledge which he himself does not have. In short, the psychiatrist is made to feel that he is the captain of an active team and that each member of the team has a special function and that as captain he must integrate and coordinate these various functions. And finally, the psychiatrist understands that the other members of the team, the social service worker, the psychologist, the corrective therapist, the manual arts therapist, educational and occupational therapist, etc., are just as important in the part they severally play as the psychiatrist is in his field. The various functions of the team members is coordinated by conferences between the psychiatrist and the other team members.

The conference with the social service worker and the conference with the correc-

tive therapist, manual arts therapist, educational and occupational therapists are held routinely once a week. Other conferences as with the psychologist, the vocational guidance advisor, etc., are held as indicated.

In the first two or three interviews with the patient, the psychiatrist attempts to evaluate the patient as to his defects and his assets and tentatively sets a goal that is believed obtainable. The defects most commonly found are that the patient lacks motivation, his self esteem is low, he cannot easily establish satisfactory interpersonal relationships, and he has too much hostility arising from conflicts unknown to the patient. However, the patient's assets, his intelligence, his skills, previous ideals and perhaps past or present meaningful relationships must be ascertained and used. With these facts in mind, the psychiatrist can begin calling on various members of the team for aid.

Though each patient is a particular problem and the schedule of activities is individualized for each patient, there are certain principles I would like to stress.

Let me speak first of motivation. In my opinion nothing is so important for any individual as motivation. A man without motivation is like a ship without a port. We have all seen many maladjusted people who somehow maintained ability for productive work and were able to meet competition because they had some strong motivation such as a desire to own a home, need to care for a child, prestige and even money.

Psychologically speaking, many things stimulate interest, but I know of nothing that is so satisfactory in developing firm motivation and in raising self esteem as a piece of work well done. The patient's knowledge that he has done something to be proud of — something that others recognize as an accomplishment, will at once develop interest and desire for further accomplishment and will give the patient self confidence. To be brief, there is no therapy like honest work.

At this point, I would like to pay tribute to the members of the team who by virtue of their particular skills do so much for the patient in establishing good work habits. I refer to the manual arts therapist, the educational therapist, the occupational therapist, the vocational advisor and the corrective therapist. When I walk through the shop and see my patients busy at some productive work I know that they are on the road to recovery.

In addition, many of the manual arts and occupational therapy projects are excellent stimuli to the creative spirit, which I believe is almost instinctive. Ceramics, silk screen work, photography, commercial art, fine art and many other occupations satisfy this very common need for creating something.

As the patient progresses, his progress is discussed at the weekly conferences mentioned above. The various therapists and the psychiatrist exchange thoughts and views and the assignments of the patient are changed as indicated to a more advanced (or perhaps simple) type of work.

When the patient is sufficiently advanced, he is referred to another member of the team, the vocational advisor. It is amazing to see how many patients are utterly unrealistic in selecting goals. A patient with an I.Q. of 80 may want to be an electrical engineer, or an introverted inhibited schizophrenic may wish to be an actor. The vocational advisor tests the patient for aptitudes and interests and on the basis of his findings a realistic evaluation of the patient's potentialities may be given. In the V. A. Hospital, Bronx, we have found the vocational advisor to be extremely helpful not only in advising as to the patient's capacities, but also in advising as to suitable employment agencies and other sources of work.

This instance is a good example of how team work is absolutely essential in any rehabilitation program. A psychiatrist alone would be unable to advise the patient on vocational matters. On the other hand, he can tell the vocational advisor some of the inner conflicts that affect the patient and between them a solution to the patient's problem can be found.

At the V. A. Hospital, Bronx, we have developed industrial therapy. Through the assistance of the manager, General Ralph De Voe, certain patients are permitted to work in the various hospital shops and offices. If a patient is approved, he may be assigned to the garage or the carpenter shop or the library, etc. Only those patients are selected who have been screened by the manual arts therapist and have been found to have sufficient capacity to meet the added responsibility. In the hospital shop, the patient is treated like a regular employee — minus the salary. The shop foreman reports on the patient's work and the rehabilitation coordinator supervises the patient in a general way. The progress of the patient is discussed at the weekly conference with the psychiatrist. This industrial therapy has been found of value as it is reassuring to the patient to learn that he can carry on the same as the regular employee.

But all too frequently the patient will not socialize. In such cases we have found the corrective therapist indispensable. I do not wish to imply a limitation of the services of the corrective therapist to this group — far from it. But the friendly aggressiveness of the therapist's approach usually succeeds in drawing the patient from his shell. It is highly gratifying to see seriously regressed or disturbed patients play ping pong or volley ball with the corrective therapist and when we see this we know that improvement of the patient has begun. At the Veterans Hospital, Bronx, we have found that swimming has been very helpful to the patients and has been a great stimulus to socialization.

Here again the progress of the patient is discussed with the psychiatrist at the weekly meeting with the various therapists. This is also another example of the value of team approach to the patients' problems.

We recognize that the socialization process cannot be limited to a few hours in the game room, or one of the various shops. The recreation service is called upon freely. Small ward parties have been found excellent in loosening up the introverted patient, and of course there is a large amount of more formal entertainment such as movies, shows, ball games, etc. The ward personnel also are instructed to take time out to talk with the patients, perhaps play a game of checkers.

Then there are various group activities, such as a group studying music — or forming a small orchestra — swimming groups — reading or dramatic groups. These groups are considered particularly valuable because the patients reenforce each other. When they find that other patients have the same problems as themselves, they develop a better perspective of their own problems. Groups, however, have to be watched or supervised, as occasionally some unproductive motive — as desire for excessive play — arises.

Progress is not always steady. Patients become discouraged and frightened. The most common disturbing influence is the family. When Robert Burns wrote, "Man's inhumanity to man makes countless thousands mourn," he must have been acquainted with the families of mentally ill patients. Relatives as a group are badly confused about the causes of mental illness and all too frequently the family regards the patient as a malingerer or as mean. The mother, father, wife, etc., never see that in any way they contribute to the patient's illness. In these cases the psychiatrist calls upon the social service worker to render indoctrination or psychotherapy to the relatives. For there is nothing so disheartening as to secure a good result only to have the patient break down in a year or even less due to the carping critical attitude of some relative.

I have said nothing so far of the work of the psychiatrist, but I am sure that you understand that throughout his stay in the hospital the patient receives intensive therapy, not only psychotherapy but also insulin or electro-shock.

Now applying the thoughts mentioned above, let us see how it works out. First, the patient comes to a closed ward. He is unhappy; often hostile; he is usually oppressed by a sense of failure and futility. All too often he feels alone and friendless. Immediately upon entering the ward he is greeted with a pleasant smile and he is treated as though he were a person well liked and of importance. Efforts are made to get him to talk, to play games and to join in the activities of others. He is interviewed by the psychiatrist, who assures him he will be helped. The psychiatrist discusses his major problems and tries to ascertain the interests of the patient. After tentatively evaluating the patient's interests and capacity, he refers the patient to the Occupational Therapist or to the Manual Arts Therapist. A schedule of activities is prepared, with time allotted to the Corrective Therapist, the Occupational or Manual Arts Therapist, and also some time for exercise in the gym or on the ground. In the meantime, the Social Service worker is asked to contact the family and the psychologist is asked to examine the patient. Any special treatment such as insuline therapy is prescribed.

At the weekly conferences the psychiatrist and the various therapists discuss the case as to possible goals, and also as to the occupations best suited for the patient. As he improves, the patient is assigned to more exacting work. All the time the therapist has in mind helping the patient socialize, teaching him habits of industry, and trying to stimulate interest and motivation.

If the patient improves, he is placed on a semi-locked ward. Here he finds patients in a better state of adjustment. He may be given the privilege of walking on the grounds. He is encouraged to join groups, perhaps the ball team, perhaps to learn a musical instrument, or perhaps to express himself in art.

The improvement is again discussed at the weekly conference and as he improves the patient will be referred to the vocational

advisor. Here he will be tested for vocational interests and aptitudes. Here, also, he will approach the problem of future employment. If the patient is too unrealistic, it may need the combined efforts of the psychiatrist, the vocational advisor, and perhaps the other therapists interested in the case to persuade the patient to give up impossible goals. If the patient needs training he may receive help from the Educational Therapist. If he is considered well enough adjusted, he may be given industrial therapy in one of the hospital shops. At this stage he will probably be sent to an open ward, and thereafter will receive week-end passes. The patient's reaction to visits home are noted carefully, and if they seem to disturb him, it may be necessary to have the Social Service worker give therapy or indoctrination to some relative who is hostile to the patient. Throughout this period the patient's time is filled as completely as possible — Corrective Therapy or physical exercise, certain hours in the Manual Arts Shop or the Occupational Therapy Shop. Always he is encouraged to develop interests, to socialize more, and always efforts are made to build up his self-esteem.

Finally, he is ready for either a thirty-day leave of absence or discharge. But even after discharge the patient is encouraged to visit a mental hygiene clinic. And of course, the hospital maintains a follow-up clinic.

This is a very brief outline of the rehabilitation program at the Bronx Veterans Administration Hospital. If I have succeeded in impressing you with the need for team approach to the problem I shall be happy. A patient's problems are much too complex for one individual, and no two patients respond alike to the same therapy. I would like to again urge the need for developing motivation in the patient; of raising his self-esteem and the need for helping him to socialize. In bringing these improvements about, I desire once more to emphasize the importance of work therapy, and above all, to stress the need of coordinating the activities of the various therapists on the team, so that the patient will receive maximum help in his rehabilitation.

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Session on

THE REHABILITATION OF THE BLIND

Tuesday, October 24, 1950 • Keystone Room, 10:30 A.M.

Presiding

GEORGE F. MEYER

Executive Director, New Jersey State Commission for the Blind
New Jersey

The Session Committee

CHAIRMAN, PRESIDING OFFICER

HERBERT R. BROWN, *Director, Vocational Rehabilitation of the Blind, New York* • PETER J. SALMON, *Executive Director, The Industrial Home for the Blind, New York* • CARL HOLDERMAN, *President, New Jersey State Council, Congress of Industrial Organizations, New Jersey* • LON ALSUP, *Executive Secretary, State Commission for the Blind, Texas*

Objectives, Methods and Procedures in the Placement of the Blind in Industry

ARTHUR L. VOORHEES
Specialist, Blind Rehabilitation, United States Office of Vocational Rehabilitation, Washington, D. C.

This meeting marks a milestone in the development of industrial employment for blind persons. To my knowledge it is the first time that representatives of agencies providing vocational rehabilitation to blind persons have had the privilege of sitting down publicly with outstanding executives of labor and management organizations to discuss this matter.

In order that the importance of the subject may be brought into its proper focus, let us consider that there are approximately 250,000 blind persons in the United States. It is generally conceded that 10%, or 25,000, of this group can be suitably employed in industry. The question "how many blind persons are presently employed" is one for which no adequate statistics are available. Estimates vary from 4,000 to 8,000 persons. Figures in the Federal Office show that between July 1, 1944 and June 30, 1949 the state agencies serving the blind reported 10,724 rehabilitation closures of which number 5,216 persons were rehabilitated into industrial employment. If we take the top figure of 8,000, we still find that there is a need to develop employment opportunities for some 17,000 blind persons.

Primarily the job is one of public education. Traditional thinking has been that blind persons cannot be employed and if they are, they can only do the very simplest type of work. We know from experience that this is not true. The rehabilitation closures represented in the figure 5,216 previously mentioned covers a large variety of occupations in the skilled, semi-skilled and unskilled groups. Consequently, our educational program must be geared to bring the general public to the realization that the skills of blind persons vary just as much as do the skills found in the total population of which they are a part.

The objective, therefore, is to develop employment opportunities which are compatible with the skills and abilities of the blind individuals who are to fill them. It is also essential to emphasize the necessity for considering the placement problems of blind persons apart from the placement problems of other groups. The reasons for this are becoming more and more obvious as we gain experience in dealing with ever increasing numbers of clients. Further, we must strive to keep negotiations concerning the blind separated from controversial labor-management issues. This is a pleasant task interestingly enough because no one is really "mad" at the blind — people are merely perplexed and they are anxious to have someone point the way in order that they may understand how to cooperate. It has been my experience that labor and management groups are enthusiastic in their cooperation once they are shown the way.

Naturally, no employment program could succeed if the possibility of dislocating sighted workers were not considered and, therefore, agencies generally try to place blind persons on a distributive basis rather

than in groups. It is, however, necessary to point out the advantages which are derived from hiring blind workers, such as a marked reduction in absenteeism as well as labor turnover. This results in greater profits to the employer for we all know that it costs money to train new workers or shift old ones to other jobs. In addition, insurance carriers assure us that there are fewer accidents among blind workers, and employers who have hired them attest to the fact that steady production can be depended upon. The one benefit that can only be derived from the employment of a blind worker is the morale boosting effect on other workers. You can readily understand how the sight of a blind person cheerfully doing his job day in and day out will give the fellow next to him just a little less room to grumble, and we all know the contagiousness of a smile.

Agencies serving the blind must accept certain responsibilities when requesting cooperation of labor and management. They must realize that attention will be focused on the blind worker just as it would be focused on a piece of new type equipment. Therefore, agencies select the client they believe to be best suited to the job and provide him with the necessary training to perform it satisfactorily. Furthermore, just as the manufacturer guarantees this piece of new type equipment and just as he provides service to the employer to make sure that satisfaction is being given, so it is our responsibility to make certain that the unit of labor we have placed is doing the work we promised it would do.

From a national viewpoint, we are helping to stabilize our nation's economy by providing employment for a larger segment of the population. In this connection, agencies serving the blind recognize the need for developing readily available jobs for persons who lose their sight while employed in industry and I am sure that labor and management representatives will agree that this is a service which can be of value to them.

Generally the methods and procedures of accomplishing these objectives follow a somewhat standard pattern. It is necessary first to establish with an employer a policy favorable to the employment of blind persons. It is then necessary to analyze the job operations in a plant to determine those that can be performed without the use of sight. The next step is to test any of the jobs which appear to be suitable to make certain that they are practical for a blind worker. At this point the agency has concrete knowledge of the job opportunities within the plant and its representative can meet with the local union officials to enlist their cooperation on an objective basis. Arrangements can then be made for the agency representative to meet with the executives of the company and of the union to complete satisfactory employment procedure.

If the terms of the union contract prevent a blind person from filling any of the jobs selected, it is frequently necessary to draw up a clause of exception to be included in the present or future contracts. The seniority clause which is a part of most contracts is a device to protect the worker. Yet frequently it serves as a bar to the employment of the blind. This is particularly true when the jobs which can be performed without the use of sight are rated above the lowest classification at which a new worker can be employed. For example, if the job of package sealer were under consideration and this happened to be the third rated classification, and if none of the jobs in the two lower steps could be performed without the use of sight, a blind person could never be employed in the plant.

One company and its union met with the state agency for the blind and agreed that one blind person for every thousand sighted workers would be employed in the plant regardless of the job classification or seniority provisions. Another large company agreed to set up a special classification for blind persons within its "1% clause" exempting certain specified classes of employees from seniority provisions of the contract.

Another possibility is the inclusion of some such clause as the following:*

> As a matter of cooperation with the .... agency serving the blind, the parties agree that the classification of .... may, by specific agreement between management and union representatives and without regard to the contract seniority clause, be filled by a candidate of the ..... agency for the blind who has demonstrated his ability to perform this work to the satisfaction of management. Following the successful completion of the regular thirty-day probationary period, this employee will become subject to all of the provisions of the seniority clause except that in case of reduction of force he shall not be bumped below the classification of ....

In making any such arrangement caution should be taken that a clause of exemption

* The above clause is merely a tentative suggestion and will need to be developed in terms of specific circumstances.

is not in conflict with the many such clauses which are already in the contract. Care should also be exercised to prevent any agreement from conflicting with the progression provisions of other workers. When any agreement has been completed, it is well to make sure that members of the company and of the union thoroughly understand the terms of employment for blind workers in the plant. It is then the responsibility of the agency to select a worker for the job who, on the basis of physical examination, work and educational background, psychological evaluation, training and interest, appears to be suited for the job in question. A responsible representative of the agency should accompany the client to the plant and remain with him during the entire induction and orientation process so that he may assist foremen and supervisors in adjusting the new worker to the job. Finally, in fulfilling its responsibility to labor and management, the agency for the blind should keep in regular contact with the company and the union to assist with the solution of any problems that may have developed, or, if necessary, to transfer the worker to other jobs in the plant or replace the worker if he is not producing satisfactorily.

I appreciate the opportunity of participating in the discussion and I hope that my fellow members of the panel will help point the way to the development of a pattern which could be used in expanding the type of labor-management cooperation necessary to develop industrial employment for blind persons.

How Organized Labor Can Cooperate in Job Placement

LEO PERLIS
National Director of the National C.I.O., New York City

The National Rehabilitation Association has performed, since its inception twenty-five years ago, a useful service not only for the ill and the injured, but for the community at large. There can be no health nor wholeness anywhere unless attention is paid to the sick and the disabled everywhere.

Our conscience and our sense of practical values dictate our concern for the handicapped. Perhaps it would be enough to say that there, but for the grace of God, go I.

I am grateful, therefore, for the opportunity to participate in the program of the Association and its section on the blind.

Mr. Meyer assigned to me — as a labor representative — the job of indicating in specific detail what could be done to better insure and increase the job opportunities of blind people in industry.

Your first impulse, of course, is to be shocked by the very suggestion that blind people can work in industry. Panhandling, yes. Selling newspapers, yes. But industry — with its noise, its assembly lines, its hazards, no.

I suppose this reaction is perfectly human. Sighted people consider blindness a profound tragedy which, of course, it is; sightless people eventually realize that blindness is a profound challenge which, of course, it must be.

At least a small part of this challenge should be accepted by both labor and management. Let us, therefore, dry our tears and see the problem in its true perspective. Many of the some 300,000 blind persons in the United States can be gainfully employed in jobs other than paper and pencil selling. It would be to the advantage of the Nation — as well, of course, as to the blind themselves — to tap this reservoir of manpower. It is especially important that we do so today in the face of increased defense production.

The full utilization of this source of manpower requires, first of all, a drastic change in community attitudes which both labor and management share. Regional educational conferences with labor and management should be held. Motion pictures showing blind persons at work in industry should be exhibited. For this purpose television also would be an excellent medium.

Placement of the blind, while admittedly a special problem, should be considered in the light of the total employment picture. The blind should not be used by a few unscrupulous employers as a source of cheap labor. In the employment of the blind, existing collective bargaining agreements should be honored and the standard wage rates should be applied without discrimination. Under unusual circumstances, as in the case of workers blinded on the job, the union and management may want to make the problem a specific and, perhaps, separate point in collective bargaining.

The Government — as well as labor and management — must assume its full responsibility in providing facilities for the training and retraining of the blind.

The C.I.O., at its 1949 Convention in Cleveland, reaffirmed its long standing position in support of the physically handicapped. The resolution called for "the extension of medical services, special educational aides, vocational rehabilitation and guidance,

creation of employment opportunities, and grants for the unemployable." The C.I.O. is actively supporting federal legislation to establish a Federal Commission on Services for the Physically Handicapped.

In conclusion, the obvious fact should, nevertheless, be pointed out — in these days of the dangerously artificial boom — that neither the blind nor any other minority stand much of a chance in an economy of scarcity. Job opportunities are present only in an economy of plenty. In the long run, full employment and full production is a large part of the answer.

The Part of Management

JOHN M. CONVERY
Industrial Relations Division of the National Association of Manufacturers, New York City

It's a matter of real satisfaction to us to have an opportunity to review with you some of the things being done by industrial management to fit the physically handicapped — and particularly the blind — into gainful occupations.

Today, and every day, in offices and manufacturing plants, the blind are proving to a skeptical world that they are valuable employees.

In jobs not requiring sight, employers report that frequently the blind do better work than those with sight. They are less subject to distraction. However, sometimes the blind worker is restricted by his handicap so far as promotion is concerned. This frequently means having a very superior individual covering a given job. The blind worker is known for his application — he sticks to his job.

Looking back over the period since World War II, it would be most difficult to find an activity which has been more successful than the one you and I have undertaken — to assist the physically handicapped in their search for gainful employment.

The State Employment Office records bear eloquent testimony to the amazing progress made each year toward the general acceptance of the physically handicapped in the workforce.

Starting out with the returning veteran, the disabled veteran, we attempted to alert employers generally to the responsibility we all shared in helping the returning veteran get back into peacetime work. Our appeal, very frankly, at the start was a humanitarian one, and we called for assistance on the basis of fairness and charity. At the same time, we recognized that, while the individual needed employment to satisfy himself and to meet the requirements of those dependent upon him, the economy and our American standard of living needed his contribution to maintain our standards.

It wasn't long, however, before we began to realize that, given an opportunity, the handicapped could take good care of themselves. Employers who had given employment opportunities to the disabled began to report that when properly placed on jobs for which they were fitted, the handicapped not only held their own with the ablebodied, but, in many instances, excelled in performance. Employers who had undertaken the placing of returning disabled veterans as a conscientious obligation began to find, in many instances, that the rehabilitated employee was a better worker than he had been before his injury.

In fact, we find one of the country's largest employers, in answer to an inquiry from us, saying:

> "Furthermore, we are presently engaged in studies looking towards broader employment policies involving handicapped individuals generally. Our experience with veterans indicates that many such individuals may be employed without sacrifice to productive efficiency and with a high degree of satisfaction to the individual involved."

Recognizing the reservoir of abilities and skills that was available among the so-called physically handicapped, employers began to revise their employment practices to meet this situation. The essence of successful operation in business lies in carefully selecting and training employees. To overlook the qualifications of the handicapped, employers learned from experience, was *not* good business.

Thereupon they adopted the procedure of setting down the requirements of jobs and carefully matching them against the skills of the applicant. They soon found that this practice could be applied to all prospective employees — whether handicapped or not. As a result, we learned that, when a handicapped individual was properly placed on a job for which he was fitted, he was no longer handicapped so far as his job was concerned.

The President's Committee on National Employ the Physically Handicapped Week made use of this fact and developed the slogan: Hire the Handicapped — It's Good Business!

Let's not overlook the fact that most credit for this advance in thinking must be given to the handicapped themselves. Given a chance, they wrote their own record.

During the past two years, we have held a series of meetings of employers to deal with this problem of employment of the physically handicapped and older worker. It has been most interesting to observe that many employers are recognizing that as good businessmen they can no longer afford to overlook the handicapped applicant. With labor costs becoming a constantly more important factor in manufacturing, the successful employer must see to it that he draws his new employees from the best possible workers.

I'm not suggesting that there isn't still a great deal of work to be done in this field. Actually, we are attempting to overcome centuries of habitual thinking that the handicapped are not suited to the workforce. Selective placement has been used in the State Employment Offices only since 1940. The President's Committee on National Employ the Physically Handicapped Week was formed as recently as 1947. On the first day of NEPH Week, I happened to be talking at the desk of the Supervisor of Handicapped Placements in the New York Employment Office, and she mentioned that she had just placed a "wheelchair case." She remarked that she wouldn't have attempted such a task a few years ago.

We have been particularly impressed by the assistance given industry by the various agencies for the blind. We like their procedures. They deal with each problem on an individual basis — and certainly it's the American way to treat each individual as a distinct and separate person. They recognize the danger of setting aside certain jobs for the blind. They have a real fear of having their people exposed to a catalogue of jobs.

For instance: Mr. Andrew J. Schmitt, placement specialist, Industrial Home for the Blind, normally goes to the plant and examines the various jobs to determine if they can be done by those without sight. He selects jobs where vision is not a prerequisite and then matches capable, qualified people to the job opportunities. Briefly, he follows this procedure:

1. On visiting the shops he first gets the answer to the question: How will the man get to the job?
2. He then examines the products and processes, demonstrating which jobs can be done by the sightless on a *productive* basis.
3. He inquires as to the steadiness of the job.
4. He considers the flow of materials to and from the job.
5. He then looks for alternate jobs for which the blind individual would be qualified in the event of the need to transfer him.

Stanley Wartenberg, of The Lighthouse, claims that the abilities and skills of the blind cover too great a variety to make any listing of jobs practical. However, because of their sight limitations, it is suggested that:

1. They work within a few foot radius, lest they lose too much time in moving around.
2. They work with pieces which can be conveniently handled — units not more than 4 pounds and not too small. They should be large enough to feel.
3. Riveting, eyeletting, mechanical assembly, operating drill presses or stamping machines are referred to as ideal jobs for the blind in industry. Packing and capping bottles in cosmetics and drug plants; repetitive operations like bimanual assemblies; sizing and sorting materials; gauging bearings; filing and burring; operating mailing machines and metal presses; bookmaking; toy making; operating sewing machines; piano tuning are a few of the many tasks being done successfully by the blind.
4. The film industry with its many "dark room" jobs, the radio assembly plants, lithographing companies, large offices which use dictaphone transcribers, bakeries, food and drug companies, are some of the places which employ blind people.

Effect on Morale

Employers tell us that the blind employee usually has a good effect on the morale of his associates. The blind employee properly placed and doing a good job is an excellent example for the rest of the group and his presence is a distinct morale booster. However, the effect can be quite the reverse if he is not properly placed and is "in the way."

The presence of a blind co-worker, one manufacturer mentioned, kept the aisles in the plant clean.

The care with which the sightless operate makes for fewer accidents to themselves and in turn tends to make their associates more safety conscious.

Results

It is generally agreed that where the blind are properly placed on the job for which they are qualified, their productivity is as good or better than the non-handicapped.

In one plant, where a cable splicing job

had normally taken two weeks, a blind operator developed a series of jigs which reduced the time to three days.

In a New York office where six girls worked at transcribing, the two blind girls happened to go on vacation at the same time. Their production was missed so much that one of them was recalled. It seems the blind girls produced twice as much work as any two of the girls with sight.

One manufacturer of photographic equipment has a blind foreman. He feels that he not only has a valuable assistant, but one who is not likely to be touched in event of manpower mobilization.

One plant, where five blind operators have been on the job for more than five years with outstanding records, has set aside a certain number of jobs to be covered by blind people. The union in this instance has waived the seniority provision of the labor contract and the company holds the jobs in a sort of trust for the blind organization.

The blind worker, we are told, wants no special conditions. He only wants to work under the same conditions as do other employees.

Employers say that he is usually a steady, stable, careful worker; that his productivity is average or better; that his safety record is better than average; that he is prompt and is not addicted to staying off the job; that he stays with the job and employer; that he is a good man to have around.

As an individual he needs the opportunity to participate in the work force and support himself and those dependent upon him. The Economy, in turn, needs his contribution. The employer in his search for competent employees can't afford to overlook the capable blind or otherwise handicapped worker.

As a result of informal sessions with employers and surveys conducted by the National Association of Manufacturers, we feel justified in indicating some principles which now guide employers in the employment of these people.

1. Contrary to belief in some quarters, the physically handicapped do not constitute a separate segment of the population with peculiar attributes of their own.
2. Jobs vary in their physical demands as much as individuals vary in their abilities and skills.
3. Matching the capacities of the individual with the physical demands of the job constitutes sound employment placement.
4. Lists of occupations for certain types of handicapped individuals emphasizes disabilities rather than abilities and is pretty well outmoded as means of assisting the physically handicapped in their search for gainful employment.
5. Every job can be considered suitable for an applicant with some degree of handicap.
6. Sound employment procedure involves a job analysis of all jobs in the plant and an appraisal of applicants in like terms.

Why Jobs for the Handicapped?

Some of the reasons for industry's interest in the employment of the physically handicapped can be summarized as follows:

1. Experience has overwhelmingly demonstrated that handicapped workers, when properly placed in jobs they can do, make productive, steady and capable employees.
2. Simple justice demands that the handicapped be given an equal opportunity with able-bodied workers for jobs they are qualified to fill.
3. Our economy needs the contribution of the handicapped to maintain and improve our high standard of living.
4. The handicapped individual needs the sense of satisfaction that goes with making his contribution to the general welfare.
5. It is good business to hire the physically handicapped where they fit into your operation.

Joint Campaign

Recognizing that manufacturing industry — which is NAM's immediate interest — is responsible for only some 25% of the available jobs in this country and that most job opportunities lie outside industry, in the Fall of 1948, NAM joined forces with the Chamber of Commerce of the United States in a business, commerce and industry program to deal with the problem of the employment of the physically handicapped and older workers. It was felt that working together, both organizations would reach the majority of employers in the country.

In our efforts to fit the physically handicapped into the work force, we might well keep in mind a statement of K. Vernon Banta, Assistant Executive Secretary of the President's Committee on National Employ the Physically Handicapped Week: "Equality of opportunity for the handicapped is not sought at the expense of other workers. No special preferences or advantages are asked. The Committee seeks employment of the handicapped solely on the basis of their ability to do a job as well as or better than

the so-called normal workers. Considerations of emotion, either for or against the employment of the handicapped, have no part in the program."

Responsibility of Individual

It would be most unfortunate if our attempts to provide the physically handicapped worker with security should encourage the false assumption that the individual no longer need look after himself. Whatever is done must be based on the fact that the individual still has the problem of fitting himself into the work force on the highest level that his training and qualifications will permit.

The problem fundamentally is to encourage the full play of individual opportunity and initiative so that men with ideas can strike out into new fields and thereby provide more and more goods and services for more and more people. Full utilization of the abilities and skills of all our people depends upon an expanding economy. Any effort to provide gainful employment for the handicapped group at the expense of able-bodied people would be unrealistic and fraught with danger.

Any move in the direction of discouraging business from taking the risks that make for an expanding economy will tend to lessen job opportunities for everyone.

Session on

THE INDUSTRIALLY INJURED

Tuesday, October 24, 1950 • Grand Ballroom, 2:00 P.M.

Presiding

KENNETH E. POHLMANN

Director of Rehabilitation, United Mine Workers of America Welfare and Retirement Fund, Washington, D. C.

The Session Committee

CHAIRMAN, PRESIDING OFFICER

STANWOOD HANSON, *Liberty Mutual Insurance Company, Boston, Massachusetts* • DONALD A. COVALT, M.D., *Clinical Director, Institute of Physical Medicine and Rehabilitation, New York City.* DONALD H. DABELSTEIN, *Assistant Director, Office of Vocational Rehabilitation, Washington, D. C.* LEWIS T. HINES, *Assistant to President, American Federation of Labor* • MARSHALL DAWSON, *Bureau of Labor Standards, United States Department of Labor, Washington, D. C.* • DEWEY DORSETT, *General Manager, Association of Casualty and Surety Companies, New York.*

Correct Medical and Surgical Diagnosis and Treatment

ALEXANDER P. AITKEN, M.D.
Boston, Massachusetts

Rehabilitation of the injured workman is dependent upon many factors. First of these, of course, is the extent and severity of the injury. Second, the competence with which the acute emergency is handled. Third, the competence of treatment following the immediate emergency. Fourth, the physical condition of the individual at the time of accident and during the period of convalescence. Fifth, the recognition and treatment of any psychological effect of the accident. Rehabilitation is, therefore, a definite medical problem and no program of rehabilitation can be successful unless this fact is recognized.

We cannot prevent industrial accidents from occurring. In all probability we will always have extensive and severe injuries; their prevention is not within the scope of this paper. The remaining four factors, however, concern treatment and it is the importance of these factors on successful rehabilitation that I wish to discuss.

Perhaps the most important factor of all is the competence of handling of the acute emergency. When a part has been injured it is imperative that the exact nature and extent of the injury be recognized. Only upon such knowledge can correct treatment be established if function is to return to the injured part. If an injured structure is not repaired at the time of the original accident, it must be repaired at a later date. In general, the longer the interval of time between the date of injury and that of eventual repair, the poorer the result. Any attempt to restore function to a part which has not had adequate surgical care will fail. No form of physical medicine can compensate for or obviate inadequate or inefficient surgical care. Often times serious injuries to bones, joints, tendons, nerves, and skin can be accurately appraised and efficiently treated only by a surgeon skilled in the field of traumatic surgery. Such surgeons are relatively rare and by and large are found only in the larger cities. In most communities, serious injuries are treated either by the local doctor or community surgeon. These doctors do the best they can and in most instances do a creditable job. In other instances, because of their lack of experience, they possess neither the knowledge, skill nor equipment to render the necessary treatment. Under these circumstances, the results of many serious injuries leave much to be desired. It is usually only after several months of futile treatment by the surgeon and fruitless effort by the patient that such cases fall into the hands of a competent surgeon, if indeed they ever do. By this time much valuable time has been lost. Muscles and ligaments have become stiffened and shortened with resultant loss of motion and deformity. Fractures may have healed in poor position with shortening, if they have healed at all. Joints may be stiffened in deformed positions by adhesions, scars, muscle contractions or displaced fragments of joint surface. Tendons may have become adherent within their sheaths or to one another or to overlying skin or

underlying bone or both. There may be paralysis of muscles with deformity or anaesthesia of the skin with ulcers because of damage to one of the major nerves. Defects in skin may have healed in dense contracted scar-producing deformity and loss of motion. Any or all of the above complications may exist. To add to an already confused picture, reflex vascular disturbances may have developed due to the secondary effects of injury upon the sympathetic nervous system. To these ravages of injury are often added those of disease particularly in individuals past middle age. As serious as these complications and sequelae are, none are more serious than the mental depression or emotional instability which may develop, precipitated by the accident and aggravated by months of disability and discomfort with no visible evidence of improvement despite treatment.

Patients presenting this picture are seen far too commonly in our larger institutions, before our industrial accident boards, and by those of us working in the field of rehabilitation. The rehabilitation of such individuals presents a serious problem, far more serious than most laymen and many physicians realize. Too often it is assumed that these patients have reached an end result, that their disability is the natural result of their injury and that nothing further can be accomplished from a medical point of view. Rehabilitation, so-called, then becomes a question of merely teaching the individual to accept and use what he has and of fitting him to some form of employment within his physical capacity. We do not subscribe to this concept of rehabilitation. It has been our experience over the years that most cases of prolonged disability are due either to errors in diagnosis or to inadequate and inefficient treatment or both. True rehabilitation can begin only when such errors in diagnosis and treatment have been corrected. To be sure, many individuals are so badly injured and over such a long period of time that they can never be rehabilitated, but such a decision can be reached only after that patient has been carefully and thoroughly examined by a qualified surgeon trained in the field of traumatic surgery. All patients presenting themselves for rehabilitation are entitled to such an examination. The examining surgeon should be able to determine first, what the exact nature of the injury is, whether or not it has been adequately treated and whether any complications have developed. Second, he should determine whether rehabilitation is possible either in whole or in part. Third, he should determine how rehabilitation is to be accomplished. In some cases only physical or occupational therapy is indicated. In others this may be supplemented by remedial splinting or braces. In others, however, rehabilitation can be accomplished only after some form of reconstructive surgery. In cases of lost motion, mobility may be re-established by replacing thick keloidal contracted scars by skin grafting. In cases of tendon involvement it may be necessary to resuture tendons or, in wounds of the hand, to replace damaged adherent tendons with tendon grafts. Loss of motion due to deranged joint mechanics may be corrected by excision of contracted ligaments, repair of fractured bones healed in poor position or by bone grafting in cases of non union following fracture.

Cases of deformity may be repaired by plastic operations on skin, tendons, bones, or joints.

Paralysis of muscles with loss of function and deformity due to damage of the nerves may be repaired by resuture of the nerves where possible or by muscle and tendon transplant and by joint fusion when the nerves cannot be repaired.

Painful areas can often be relieved by operation on the involved nerves and by excision of painful scars. One of the most frequent causes of pain is the development of the complication of reflex vascular dystrophy. This condition effects the blood vessels through the sympathetic nervous system. This condition is frequently missed by the attending physician. It is characterized by severe burning pain usually out of all proportion to the original injury. The injured member becomes cold, either dusky or pallid in appearance and shows excessive perspiration. The condition is particularly resistant to treatment even when recognized and many patients cannot be rehabilitated until surgery on the sympathetic nervous system is performed. Any attempt to perform corrective surgery without first correcting this condition will end in disaster. This complication is very common and is a cause of much prolonged and painful disability. It is one of the commonest complications overlooked by the attending physician.

There may be a combination of many complications in any one case. In serious injuries of the hands, for example, particularly those produced by crushing under hot presses, there may be extensive deep burns associated with multiple fractures involving joints together with damage to the tendons and nerves. The result of such injuries may be extensive loss of skin which has become

replaced by thin skin over the bony prominences which breaks down on the slightest pressure or friction, and by thick contracted scars on the palmar surface of the hand. The underlying tendons may be adherent to one another and to the overlying scar. The presence of burns may have interfered with the proper handling of fractures and rendered impossible the repair of severed nerves. Most cases so injured can be benefited by surgery if they are placed in competent hands. As hopeless as these cases appear, it is not fair to the individual not to offer him the chance of at least partial recovery afforded by competent surgery. Whether a disabled individual can be so helped should be determined by the examining rehabilitation surgeon. This is an essential part of true rehabilitation.

On examining applicants for rehabilitation it is often discovered that they are suffering from diseases which have a direct bearing on their recovery. Diabetes, for example, is frequently overlooked simply because the patient had no symptoms of this disease and a urine examination had not been made. The presence of a high blood sugar is a definite deterent to healing and may be a cause of prolonged low grade infection. The presence of kidney disease, high blood pressure, tuberculosis and anemia must also be ruled out, as their presence not only has a direct effect on healing but also on the feeling of well being of the patient. Vitamin deficiencies are frequently seen in the elderly who live alone and subsist largely on tea and toast. Before any individual is subjected to vigorous exercise which may be an essential part of the rehabilitation program, it is often prudent to ascertain the presence of coronary heart disease or some allied cardiac condition. Many patients free of any specific organic disease are so under par that their general physical condition must be built up as a part of their rehabilitation. It thus becomes obvious that all patients should be given a careful physical examination by a qualified internist before entering upon any program of rehabilitation.

The physical afflictions produced by trauma or disease, as obscure as they might be, can usually be exposed by careful and diligent search. Not so simple, however, to find and treat are the disturbances of the mind. The most difficult patients of all are the mentally depressed and the psychoneurotic. Unless some way is found to overcome the hidden fears of these individuals, months of work may go for naught. The average layman and physician know relatively little of the suppressed fears and frustrations of his fellow man and the profound effect they may have on his physical and mental well being. Most of us do well to suspect the presence of these factors in the individuals under our care. Then we need help; the help that only competent psychiatry can give. In any program of rehabilitation, it must be recognized that recovery is as dependent on the conquering of emotional disturbances as it is upon physical restoration. To this end the psychiatrist is indispensable.

In these few short minutes I have tried to show the importance of correct diagnosis and treatment in any program of rehabilitation. It should be obvious that we cannot hope to cure any individual and restore him to working capacity unless we know what is wrong with him and treat him accordingly. In the development of a rehabilitation program, therefore, it is imperative that the greatest care be used in the selection of the individual who appraises the patient on admission and dictates his subsequent treatment. The success of any undertaking will be in direct proportion to his ability.

Physical Rehabilitation

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Physical rehabilitation is a term that has been used with many connotations. I think it might be well to start this paper by defining just what is meant by its use in this paper. Physical rehabilitation is the utilization of physical medicine, including physical therapy and occupational therapy along with vocational testing and guidance, psychology and social service in order to restore the injured worker to the highest possible plane of physical, mental, vocational, economic and social usefulness.

In order that the members of the above team can do their utmost for the injured worker it is absolutely necessary that correct diagnosis and good medical and surgical treatment be given the worker previous to his rehabilitation. At the Institute, we have a phrase, "Rehabilitation is only as good as the diagnosis and treatment." Many other members of this team are necessary if a complete job of rehabilitation is to be done for any injured person. There must be careful and understanding work by the State Vocational Rehabilitation Division; there must be complete understanding on the part of the insurance company, and the laws of the Workmen's Compensation Act must be such

that the injured worker is given every opportunity to return to work.

Realizing the importance and interdependence of all of these factors in the rehabilitation of the injured worker, I am going to point out one small segment, that of physical rehabilitation, and how this is carried out at the Institute of Physical Medicine and Rehabilitation of the New York University-Bellevue Medical Center at 38th Street of New York City.

In order for a patient to be admitted to the Institute, a medical abstract must be presented from his referring physician. Patients cannot be admitted directly by themselves. After the medical abstract of the referring physician has been carefully reviewed and if the patient appears feasible for rehabilitation, he can be admitted as an in- or out-patient. This is usually dependent upon whether the patient is capable of ambulation or not. New patients are admitted for a three- to five-day period, during which time careful examinations are carried out. This includes not alone a complete physical examination, blood count, urinalysis, but also any other special examinations such as neurological, urological, or even psychiatric, if necessary, may be done at this time. After the routine physical examination, the patient is given a range of motion test for all joints, a muscle test to check the power of the separate muscle groups of the entire body and lastly what we consider the back-bone of the entire rehabilitation program, the "Activities of Daily Living" test. These one hundred and two activities inherent in daily living are the simple ones that you and I may do without thinking. To start with number one, which is moving from place to place in bed, which may be an impossible job for a quadriplegic patient who has had an injury to his cervical spine; and progressing on up through other self-care activities such as ability to dress one's self, to tie one's tie, to cut meat, to feed one's self, the ability to walk, to step up and down curbs and stairs and to cross streets. All of these are carefully checked and those that the patient can do are filled in with black ink and those he cannot do are left blank. As he learns these abilities once more, they are marked in in red in order that his progress can be watched carefully from week to week.

At the end of the three- to five-day examination period, he is brought before the evaluation clinic. At the evaluation clinic the entire staff of the Institute, including all consultants, all of the therapists and all of the nursing staff are present. The patient's history and physical findings and results of the tests are brought to the attention of the staff by the patient's physician. The patient is then brought into the evaluation clinic where his particular desires are brought forth not alone by question but by examination. Why has he wanted to enter the Institute? If the man has some particular problem such as ambulation, he may be asked to walk before the entire clinic to see just what his problem is. The patient is then excused from the clinic and his entire record is reviewed again by the staff. Two things are decided; first, is this man feasible for rehabilitation. If the patient's trauma or illness is such that the pathology is rapidly progressive so that the rehabilitation cannot keep up with the pathologic processes, then this patient is not admitted to the Institute but rather is given a careful exercise program at home that can be carried out under the supervision of his physician. The patient would probably not be told that he is not feasible for rehabilitation but some member of his family would be called in and the entire case discussed carefully with this member of the family, with full explanation as to why this patient is not acceptable at the Institute. In case the patient is feasible for rehabilitation, then again three things must be decided; first, should he come in as an in-patient or secondly, as an out-patient, or can he benefit by a home program. If it is more feasible for this patient to carry on his rehabilitation at home, his entire rehabilitation prescription is written and sent to the referring physician in order that his treatment can be carried out under the direction of the referring doctor.

For the patient who will come to the Institute as an in- or out-patient, a careful rehabilitation program is prescribed, considering his needs as far as physical and mental rehabilitation is concerned and also his physical capacity to work in his rehabilitation program. Most of our patients work at their rehabilitation on a full day's program. They work from 9 o'clock in the morning until 4 o'clock in the afternoon. They change their activities every hour just as if they were in classes at a university. A typical patient, for instance, might go to physical therapy nine in the morning, where he would get whirlpool baths and massage; at ten he would go to occupational therapy, where a proper modality would be prescribed in order to assist him to overcome his disability; at eleven he would be assigned to the functional training room, where he would learn to balance in the parallel bars and to climb

steps; twelve o'clock his lunch, and a rest period between one and two; at two o'clock his program is started again which runs until four in the afternoon.

The majority of our patients in need of physical rehabilitation also have many mental and social problems and so he will be seen by our psychologist as often as necessary and by the social workers in order that both his problems at the Institute and at home can be worked out.

We have long believed that a straight physical rehabilitation is not enough but rather every facet of that patient's problem must be taken care of if he is to be returned back to work again.

Let me illustrate with a case: A few months ago, a patient was referred to the Institute, that had been injured while working, with a resulting fracture of the humerus of the left arm. This was three years ago. He had been operated on 2½ years previously several times, with a residual restriction of range of motion at the elbow and wrist, and the fingers were carried in extension. This patient had been going to the doctor's office three times a week where an assistant had been putting a heat lamp on the patient's arm and giving him light massage for fifteen minutes. At the end of 2½ years of treatment he still had restriction of range of motion at the elbow, wrist and fingers and was unable to return to work. The physician referred the patient to the Institute and this man was put on a full day's program. He received heat and massage in the physical therapy department first thing in the morning but he was also referred to occupational therapy, where he worked with his injured arm. He was sent to the gymnasium later in the day, where he worked with weights, and muscle re-education was started to the weakened muscles. He had to be seen by our psychologist because at the end of these years of treatment, he had many psychological problems as well as physical problems.

To make a long story short, this patient came to my office after thirty-two patient days of treatment and said, "Doctor, I might as well return to work. Look," and he showed me he was able to move his elbow and wrist and was able to close his fingers and make a fist, "I might as well return back to work. I don't have all of the strength back in my fingers yet but I know I could do my job. You know, I work harder at the Institute than I did at my job, and besides, there I get paid for it!"

I hasten to add that I only wish that all of our cases ended as fortunately as this one. We have our failures, too. But the point to this story is, that by the utilization of a full day's program and the use of a team of workers so that every facet of the injured worker's problems can be taken care of, great numbers of these severely injured people can be returned back to work.

During our two and one-half years' experience at the Institute, we have seen over two thousand cases. These have included amputees, paraplegias, and quadriplegias resulting from injuries to the spinal cord, orthopedic disabilities of all types, spastic paralysis from trauma and hemiplegias both from cerebrovascular disease and from trauma.

The amputee in general needs careful rehabilitation and assistance from many members of the team. We have seen so many amputees that have travelled from the surgeon to the manufacturers of the artificial leg and who are unable to wear their prosthetic device. The surgeon says, "You have a good stump, it must be the fault of the limb maker that you cannot walk properly." The limb maker says, "You have a perfect prosthesis, but the stump is no good and that is why you cannot walk properly." The Institute has served as a sort of "court of last appeals" to these unfortunate individuals where a careful examination and evaluation of both the stump and the artificial limb is made. It has been necessary to revise the stump in some cases. In others the prosthetic device has not been made properly for the patient. The patient is seen by our consultants and by our prosthetic specialist and the patient's entire problem is carefully worked out. If surgery is needed, he is referred back to his surgeon with a note with our recommendations. If the leg is at fault, perhaps a minor revision will make this man ambulatory again. Sometimes it is necessary to prescribe an entirely new leg for the patient. After he is properly fitted, the patient must be then taught to balance again and how to use his leg properly. Careful gait training is most important to the amputee. We believe it makes as much sense to buy a piano and expect to sit down and play Bach immediately as it does to give a patient an artificial limb and say, "Go ahead and walk on it." He must have training if he is to use his prosthetic device properly.

The psychological and vocational guidance division of the Institute works with the patient during his entire stay at the Institute. We do not do job training as such but work closely with State Vocational Rehabilitation.

The patient's desires and his capabilities are carefully studied as he progresses with his physical rehabilitation program. This is a tremendous motivating factor for the severely injured worker. He knows that some one person is working with him towards getting him back to work again. As vocational possibilities are opened up for him, he works with renewed vigor in order that he may leave the Institute either to return back to his old job again or start vocational training in order to prepare him for a new position — a job that he can do capably, in light of his physical disability.

It is particularly timely that we are meeting this week on the problems of rehabilitation. Our country is faced once more with a terrible crisis. The countries of the world are mobilizing their resources, their industry and their manpower. We know the wonderfully fine record that the injured worker made in this past war. We know that they can do it again. It is necessary that every member of this meeting do their utmost to see that the injured worker has a chance to live within his community, to work at his job, for himself and for his family and for his country.

Vocational Rehabilitation

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The vocational rehabilitation of the injured industrial worker received early emphasis in the State-Federal vocational rehabilitation program. For many years prior to the enactment of the first national rehabilitation law in 1920, organizations at the local, state, and national levels emphasized that compensation was not enough and that the injured worker should have such additional services as were needed to prepare him for and place him in suitable employment.

It is natural, I think, that the injured worker would have been one of the first groups to be singled out to receive the benefits of vocational rehabilitation. As a wage earner he is usually the head of a family, and his disablement frequently causes extreme hardship not only to himself, but to his wife and children. To rehabilitate such a person back into a job whenever possible is the sensible, humane, and economically sound thing to do.

In framing the national rehabilitation act of 1920, Congress wisely provided for the vocational rehabilitation of the "industrially and otherwise disabled" and committed our nation to the rehabilitation of persons disabled from various causes, including disease and public accidents, as well as industrial accidents. However, this same act required that the state rehabilitation agency have a written agreement of cooperation with the compensation commission, approved by the governor of the state, in order to receive Federal grants of funds.

There are a number of additional reasons why state vocational rehabilitation agencies early gave special attention to the rehabilitation of injured workers. Since the Federal Act of 1920 limited rehabilitation services to counseling, guidance, prosthetic appliances, training and placement, the injured worker fit into the program very nicely, because he received treatment and hospitalization through compensation and was in position to take immediate advantage of counseling, training and job placement, the services which the rehabilitation agency was authorized to furnish. The otherwise disabled in many instances could not get the necessary treatment and hospitalization, and as a result could not qualify for vocational rehabilitation.

The injured worker has always been a good candidate for vocational rehabilitation because of the fact he has worked and earned wages. First, there is a chance to rehabilitate him back into his old job. If that can not be done he may be rehabilitated into a job requiring similar skills. Whatever the situation, we are dealing here with a person who has work habits, work skills, and work experience which are valuable assets in vocational rehabilitation.

Another factor which has promoted vocational rehabilitation of the industrially injured person is the fact that he received compensation which may be used toward his maintenance during a period of training. This feature was particularly helpful prior to the enactment of the present Federal rehabilitation law in 1943, and it continues to be helpful because of the scarcity of funds in rehabilitation agencies throughout the country.

Finally, the fact that vocational rehabilitation officials have always tried to justify the program on a dollar and cents basis favors the rehabilitation of the industrially injured because this group, more often than the "otherwise disabled group," is placed in industrial employment and receives cash wages. The record of rehabilitated persons who receive cash wages usually impresses budget officials and legislative bodies more

than the rehabilitated family workers or farmers who do not work for cash wages.

Today as in 1920 the injured worker is a desirable client of the state rehabilitation agency. He may be expected to come for service early after the onset of disability with a thorough physical diagnosis and prognosis, maximum physical restoration and good prospects for successful vocational rehabilitation.

From the foregoing discussion it would appear that the state rehabilitation agency would give preference to the injured worker. I think the record will show that this has been the policy from the beginning, and that it is the policy today. However, it does not follow that state rehabilitation agencies on the average are doing as good a job as they should be doing in rehabilitating injured workers. Some states are no doubt doing a very much better job than others, and I believe that it is correct to say that most are doing a better job rehabilitating the injured workers than the otherwise group.

There are some major problems which appear to interfere with the successful rehabilitation of the injured worker in most of the states. A few of these problems will be discussed briefly.

During the many years I have been engaged in vocational rehabilitation work I have heard discussed most frequently the problem of early and complete referral from the compensation commission to the rehabilitation agency of cases in need of vocational rehabilitation. Despite the fact that it would appear that this problem could be solved through simple arrangements and the adoption of certain inter-agency procedures, it has evidently not been solved. The offices of vocational rehabilitation reports that of the 3,700 cases involving compensable work injuries referred to state rehabilitation agencies in 1949, only 1,600 were referred by workmen's compensation agencies or insurance carriers. The other 2,100 reached rehabilitation agencies through other sources or after compensation benefits were exhausted. Since it is generally agreed that rehabilitation should commence as quickly as possible after injury, and that it may easily commence too late, it would seem that the opportunity to do a satisfactory job in the rehabilitation of the industrially injured is being substantially lost by state rehabilitation agencies on the basis of referral alone.

State rehabilitation officials need to find an early and satisfactory solution to the referral of cases. This may involve the working out of an operating arrangement in which the compensation commission, the employers, and the labor representatives all participate. The reports of compensable injuries are usually received at the compensation commissions in the state capitals. Vocational rehabilitation administrative offices are also located in the state capitals. This should facilitate the development of working arrangements. There are many ways of getting early and complete referral of the cases in need of vocational rehabilitation. An arrangement which would be effective in one state might not work in another state. The plan which brings the best results should be adopted. Until this problem is satisfactorily solved no state rehabilitation agency can claim that it has made a good beginning in the vocational rehabilitation of the injured worker.

A matter that is closely connected with the early and complete referral of cases from the compensation commission is prompt action by the rehabilitation agency on cases referred. The inability of the state rehabilitation agency to give appropriate services to the cases currently referred does, of course, definitely retard the flow of cases. When one considers that state rehabilitation agencies only rehabilitated on an average of 40 cases per 100,000 general population within the 1950 fiscal year he is caused to wonder whether or not the question of referral of the injured worker is not tied in closely with the inability of the majority of the states to provide vocational rehabilitation services to the cases referred.

It is likely that substantial progress would be made in getting the industrially injured cases referred if state rehabilitation agencies would expand their programs to the point where they could take prompt action on all cases referred. States that are unable to expand their vocational rehabilitation programs cannot be expected to do any better job rehabilitating the industrially disabled than they are doing in rehabilitating the otherwise disabled. With such inadequate programs it is to be expected that the job will only be partially done for both groups.

A prerequisite for effective vocational rehabilitation is an early and complete referral of all disabled persons in need of vocational rehabilitation followed by the prompt provision of appropriate services. To the extent that state rehabilitation agencies are not meeting these goals, they are falling short of desirable standards in the provision of vocational rehabilitation services, and their efforts are proportionately ineffective.

That most state rehabilitation agencies are

falling short of desirable standards in getting early referrals and providing rehabilitation services to cases promptly, is quite evident. In the rehabilitation of the industrially disabled this means that we are frequently called upon "to lick the calf over again" with very poor results. Rehabilitation workers are familiar with many of the problems resulting from delayed vocational rehabilitation service to the injured worker. Frequently, his compensation benefits have been exhausted, his medical record is out of date, and he has not received maximum physical restoration. Too often the loss of job and wages, and the long delay in getting appropriate services have broken his spirit and made of him a disgruntled, bewildered, and hopeless person. Psychoneurotic tendencies sometimes develop and in many instances his funds have been completely dissipated.

Dr. Aitken has emphasized the tragic loss resulting from the injured worker not getting the appropriate treatment at the time of injury. The bad results of not getting the appropriate services at the time needed are cumulative from the time he is injured. With each successive failure his problems multiply until what might have been a successful clear-cut rehabilitation becomes a doubtful, and frequently a very uncertain one. Until state rehabilitation agencies catch up with the need and start doing rehabilitation on a current basis in relation to the cases referred, the job will continue to be difficult, the results unsatisfactory, and much of the funds and effort expended will accomplish little.

The present situation of large backlogs of cases and limited funds to provide vocational rehabilitation services will not be corrected over night. We must, therefore, be realistic and plan to rehabilitate cases whose problems and needs have multiplied because of long delay, and provide for each injured worker the services which are most appropriate to rehabilitate him into suitable employment. This is a difficult job but by no means hopeless. The case which has long been neglected is frequently most cooperative and if provided the appropriate services can be successfully rehabilitated. All of us can cite shining examples of many cases which have been rescued from the depths and have made good rehabilitations.

The obvious failure to provide adequate services to the injured worker on the part of compensation commissions and rehabilitation agencies has recently brought help from another source to certain groups. A notable example is the physical restoration services provided paraplegics and other severely disabled coal miners by the United Mine Workers Welfare and Retirement Fund. This organization has not only forcefully reminded employers and the public of the failure to provide appropriate services for the injured miner, but through intelligent and courageous action it has given an excellent demonstration of what can be done in this field. Furthermore, it has encouraged compensation and rehabilitation to put forth greater efforts in behalf of the severely disabled.

In addition to more funds to expand vocational rehabilitation services for the industrially injured, there is an urgent need for better understanding of how state rehabilitation agencies can best contribute to the vocational rehabilitation of this group. Such an understanding is essential on the part of compensation commissions and insurance carriers, employers, labor representatives, and the public in general. It will furnish the basis not only for improving and making rehabilitation services more effective, but it will contribute toward improving other services for the injured worker. The lack of understanding of the State-Federal program of vocational rehabilitation has likely contributed as much as any one thing toward preventing state rehabilitation agencies from providing adequate services for the injured worker. If compensation commissions were fully informed of the services available through vocational rehabilitation, a big obstacle would be removed. The short tenure of compensation commissioners adds to the difficulty of maintaining a satisfactory relation between rehabilitation and compensation. In my own state there have been five compensation commissioners since I have had charge of rehabilitation. This problem can be overcome in part by a practical written agreement of cooperation between the two agencies followed by regular interdisciplinary conferences between representatives of compensation and rehabilitation.

The recommendations of the Committee of the States Council on Relationship with Workmen's Compensation Commissions headed by Mr. C. F. Feike are sound and will go a long way toward promoting better understanding and improved rehabilitation services for the industrially injured if the state rehabilitation agencies will carry out these recommendations.

Employers have a large stake in the successful rehabilitation of the industrially injured. If the individual employer can be made to see this, he can be of immense help

in the rehabilitation of his injured employees from the time of disablement until they are finally placed in suitable jobs. Since the employer's attitude toward hiring the disabled worker will depend largely on his understanding of vocational rehabilitation, it is important for him to know how it works and its end results in terms of properly prepared workers.

Organized labor is definitely concerned with the vocational rehabilitation of the injured worker. Labor's early and continued interest in the establishment and development of workmen's compensation and vocational rehabilitation is well known. The labor group has led in the promotion of better services for the injured worker. Today many unions are operating health and welfare services for their members. The understanding and cooperation of labor will go a long way toward promoting better vocational rehabilitation services.

Special facilities and a specially trained staff are necessary for the vocational rehabilitation of the industrially injured. The services of a vocational rehabilitation center are absolutely essential to the successful rehabilitation of many of the industrially injured. This facility should be established and operated by the state rehabilitation agency, in close cooperation with the compensation commission. The fact that most states do not have the services of such a facility means that many injured workers are not receiving appropriate vocational rehabilitation services. Sheltered workshops are also needed for those cases that cannot be placed directly in regular employment. Many injured workers are so severely disabled that they need to be prepared for and established in new jobs. Some are so badly incapacitated that they can work only in their homes. A specially trained staff is needed to provide the services required by this group.

A practical approach to the solution of the problem of providing more effective vocational rehabilitation services for the industrially injured requires leadership and cooperation. Effective leadership should result in a marked expansion of the rehabilitation program, the provision of special rehabilitation facilities, the development of a specially trained staff, and the provision of the expert services needed. Through cooperation with workmen's compensation, employers, representatives of labor, and others, the services of the rehabilitation agency can be made to contribute most in the rehabilitation of the industrially injured.

I should like to remind representatives of state rehabilitation agencies that the provision of the leadership and cooperation which I have described is their responsibility and not the responsibility of another group. The compensation commission, the employers, and the labor representatives may not be doing as good a job as they should in facilitating vocational rehabilitation. However, state rehabilitation agencies can not properly blame these agencies for not getting the job done. It is the responsibility of state rehabilitation officials to improve rehabilitation service to the injured worker and, through their leadership and cooperation with other groups, to assist in improving the total range of services from time of injury to successful placement in a suitable job. By courageously meeting this challenge persons responsible for the provision of vocational rehabilitation of the injured worker will make a definite contribution to this cause and likewise to the general welfare.

Placement — A Community Responsibility

HENRY VISCARDI
Director of Placement, Institute of Physical Medicine and Rehabilitation, New York City

There are in the city of New York 334,540 companies employing well in excess of 3,000,000 people. The New York newspapers on September 14th, 1950 carried releases by the City Planning Commission to indicate that increased manufacturing will increase the labor to 4,300,000 persons by 1970.

The greater majority of these companies do not employ disabled people, as a matter of policy, just as they may not employ Jews, Catholics, negroes, or the over-aged as the case may be, and they do not intend to do otherwise.

All of the lip service which has been given to the great cause of employment of the disabled, to the contrary, these statements are true, except of course in periods of critical manpower shortage, when it is good business to hire anyone who can breathe. Especially if the government is paying the bill.

Examine any one of the large companies you know intimately. See if you can recollect one who, except for the period of the last war and perhaps now, in the present emergency, has practiced the philosophy of employment on the basis of measured abilities rather than disability. And I would include in this group most of the companies who have received the largest amount of

publicity for their understanding attitude and employment practices, as far as the disabled are concerned.

I do not intend, directly or by inference, to pass judgment on the means we have used to date to overcome this problem. But fair analysis must admit that this shameful situation exists and something more than we have been doing must be done to correct it. I am not referring to the man or woman with flatfeet or hangnails, but to the severely disabled person who has been fitted to do a day's work for a day's pay in a competitive environment.

Let us re-examine the more than 300,000 companies in the city of New York. They would be spread along a curve which extends from the 239,599 companies who hire less than 20 employees each to the 490 companies who hire 500 or more employees.

Each of these companies in turn would have an employee curve extending from the top echelon of executives and highly skilled technicians to the lowest porter and mail clerk.

To analyze the employment needs of these companies there are 3,028 registered private employment agencies. Each is in business (for a profit) to know intimately the needs of the companies it serves and to know the relative position in the company curve of any open job it is seeking to fill.

The general practice of these companies is to seek employees from these registered agencies, none of whom know how to, or will, handle disabled job applicants unless specifically requested to do so by its client company. Let me repeat — none of whom will handle disabled job applicants unless specifically requested to do so by its client company.

The exception is the New York State Employment Service.

Unfortunately, they, with all the good work they do, can not provide the full answer, because so many companies will not do business with a state or Federal employment service. Nor is this service large enough to supply the demands in a complex employment picture such as exists in New York.

Further education, propaganda, posters, radio shows are all fine. It is comforting to know that the National Association of Manufacturers and the United States Chamber of Commerce supports the idea of employing disabled people. But until we can change the fundamental employment practices of each company, there will be less than half an answer to this tremendously increasing problem.

There are other methods. The one which I have been asked to develop for you today is a simple one with which we have been experimenting for a short period of time here in New York City. The Just One Break Committee or J. O. B. Committee, a research project of the New York University-Bellevue Medical Center.

This is a voluntary organization of businessmen, dedicated to changing the employment practices of management and labor so that employees, especially those disabled, shall be considered on the basis of measured abilities — not disabilities.

There are basically two methods of approach to this problem. The exploitation of each is predicated on the sound merchandising techniques in which we have been trained as businessmen. These approaches are:

(1) from the job to the man and (2) from the man to the job.

In the first approach, where we have been most successful and where the most good can be done, the general pattern has been to select a large employer. He is approached on a chairman of the board level by one of our J. O. B. advisory group who travels in the same circle and speaks on a first name basis. If he buys a program to hire disabled people for his company (and how can he do otherwise), your J. O. B. executive director takes over.

It is well to remember that no company ever hired disabled people on a lasting program basis just because the chairman of the board agreed to do so. The line of attack from him runs on a vertical and horizontal plane. Unless you have sold all segments you have the same old token program. It's like the chorus girl who didn't want a book for Christmas because she had a book. The Chairman of the Board will get you one man to work or maybe — but not likely — two. Then the boys down below will kill you off with kindness and negation.

From the Board Chairman the vertical line which must be sold includes the President of the company, the Medical Director (and there is the most stumbling block of all), the Industrial Relations Director, the Safety Engineer, the Methods Engineer who handles Time and Motion Studies, the Personnel Director, the Union Representatives and any other.

From there the horizontal plane of attack spreads out to the level of Supervisors, Foremen, employment interviewers, line people concerned. These are the non-commissioned officers on whom the burden of production

lies. They are not interested in the old man's whims or fancies. He is not interested in theirs. They must produce or answer for it. To do so they want the best materials and the best men available.

They can be sold this program, if top management is sold. To sell top management alone is the fatal error.

The second approach, from the man to the job, is exploited in much the same way except that, in the smaller companies we use a businessman from our committee to bring the man to the company's attention and then follow through with the details of placement.

There are several technics in exploiting both advantages. One is constant speech-making and solicitation of support from collateral groups such as Personnel and Management groups, the Trade Associations, the Union Trade Councils, the Fraternal and Social groups in the community.

Finally, there are the great merchandising factors of integrity and knowledge. Remember that your competition is the great number of private employment agencies ready and better equipped to fill that job than you. The employer is their client. The job applicant is transient merchandise.

We must know our man and the job he is to fill. Not casually, but intimately, and we must jealously guard the interests of our client, the employer. For it is with him we are seeking to establish a new philosophy of employment. The disabled job applicant is only one, but by his placement and job performance a new pattern must be established; a new monument must be erected, so that long after all of us are gone it will endure.

Knowledge and integrity. It is far better to refuse a thousand jobs on the basis that you don't have the right man than to emotionally place the wrong man. Let us re-examine the company curve which we discussed before and the relative position of jobs on the corresponding curve in each company. Fit the proper man in the proper company, in the proper job.

There are times, if you have sold your client well enough, when you will have to protect him from his own emotional approaches. Do it. Remember, as they say in the advertising agencies, clients are, after all, only children with cigars.

Remember always that this is a problem in people. Warm people who breathe and bleed and suffer just as you and I. Stripped of their disabilities some were made to be loafers, some to be tremendously productive. Their disabilities have not greatly altered these basic potentials.

But each is a life. And if all you do, if all J.O.B. does is to make the difference between a life dependent on charity or a life sweet with the dignity of self sufficiency, all our efforts will be worthwhile.

Panel Discussion

FRANK L. FERNBACH
National Congress of Industrial Organizations

Teamwork is the key to success if America's injured workers are to be given a real opportunity to achieve rehabilitation. Adequate funds and professional skills are also of the highest importance. But teamwork is fundamental if the job is to be done.

Fortunately, there is a growing awareness that improved attitudes and practices are overdue. Government agencies responsible for the welfare of the handicapped — federal, state, and local — too often work at cross purposes and without inspiration. Relations with private professional and social agencies are not always clearly defined. And the great constructive energies of the most vitally affected community groups — labor, business, and the physically handicapped themselves — have hardly been tapped at all.

More money and professional practitioners — though the need is urgent — cannot alone insure success. The leaders in the field of rehabilitation must widen their sights and lead an entire team into united action.

What is the scope of the job on which the team must work? It begins at each state capital, where adequate safety laws must be enacted, and it reaches into every work place in America, where safe practices must be enforced. The ounce of prevention must have priority and our rehabilitation experts can usefully lend their knowledge to this important task.

Then, workmen's compensation laws must be overhauled so that an adequate level of income will be provided in order to decently sustain injured workers and their families during convalescence; surely this is vital to the success of the rehabilitation process.

Next, the work of compensation and rehabilitation agencies must be closely coordinated so that the problems of retraining each injured worker will be explored immediately after every accident occurs.

Then, even while actual rehabilitation is in progress, the problem of re-employment must be tackled — otherwise the whole process becomes futile and breaks down. At this point it is especially necessary to securely

link the employment agencies as well as labor and management leaders into the working team.

The American labor movement is justly proud of the pioneer role it has played in seeking laws to advance the physical well-being of wage and salary earners. Long ago the unions started their fight for adequate safety laws and a humane system of workmen's compensation. Later they initiated the movement for a federal-state rehabilitation program and gave leadership to the fight for a nation-wide system of public employment services.

Although the responsibilities of the American labor movement absorb its energies in scores of activities on behalf of workers and of the nation, we expect to be more than interested bystanders in the continuing struggle to achieve an outstanding rehabilitation system.

If the rehabilitation movement is to measure up to its responsibilities and to its promise — particularly in these critical days of mobilization — public rehabilitation agencies must be neither sanctuaries for politicians nor societies for ivory-tower professionals.

The rehabilitation movement must be brought to the people whose welfare is so highly dependent on its success. There is work to do — much work — for all of those who are willing to participate in the job with vision and with vigor.

I am sure that organized labor everywhere is anxious to assume its responsibilities as a member of the team.

STANWOOD L. HANSON
Liberty Mutual Insurance Company, Boston, Massachusetts

I feel that the panel discussion ably demonstrated that rehabilitation of serious industrial disablement to self-sufficiency and productive employment is not possible of accomplishment through the application of any one type of rehabilitation service but can only be accomplished through a coordination of all of the technical services affecting the restoration of the individual. There must be accuracy of clinical diagnosis and the application of very specialized surgical, medical and hospital services to make the injured worker the best possible candidate for rehabilitation or retraining. If the individual has suffered the loss of body parts or extremities or the use of body parts or extremities, then a place is necessary where motion can be brought back to stiff joints, where muscles can be retrained, where strength can be restored through graduated exercise and where artificial legs or other prosthesis can be applied and the patient taught to use them. There must be adequate vocational counseling and facilities for re-education if the patient is to be taught to carry on with permanent physical handicaps. There must also be comprehensive services for placement of handicapped people in safe and productive jobs. It is our experience in the handling of the industrial disablement that a counselor and coordinator are essential to plan and arrange for the individual the necessary steps so that the injured worker may arrive at the goal of productive employment.

The other Panel Members were Lewis Hines, Special Representative, A. F. of L.; George R. Nelson, International Association of Machinists; Marshall Dawson, Bureau of Labor Standards, U. S. Department of Labor; Dewey Dorsett, General Manager, Association of Casualty and Surety Companies, New York City, and Donald A. Dabelstein, Assistant Director, Office of Vocational Rehabilitation, Washington, D. C.

Session on

THE SCHOOL CHILD

Tuesday, October 24, 1950 • Keystone Room, 3:00 P.M.

Presiding

FRANK J. O'BRIEN, M.D.

Associate Superintendent, Child Welfare Service, Board of Education, New York City

The Session Committee

CHAIRMAN, PRESIDING OFFICER

SAMUEL WISHIK, M.D., *Director, New York Bureau of Child Health, New York City* • JOSEPH J. ENDRES, *Chief, Bureau of Physically Handicapped Children, New York City* • WILLIAM BENHAM SNOW, M.D., *Associate Professor of Medicine, College of Physicians and Surgeons, Director of Occupational and Physical Therapy, Columbia-Presbyterian Medical Center, Member of Orthopedic Advisory Committee, New York City* • ALICE FITZGERALD, *Executive Director, Association for the Aid of Crippled Children, Member of the Orthopedic Advisory Committee, New York City* • ROMAINE MACKIE, Ph.D., *U. S. Office of Education, Washington, D. C.* • MARION MARTIN, *Supervisor, School Child Service, Division of Vocational Rehabilitation, New York City*

Introduction

DR. FRANK J. O'BRIEN

"I believe in thinking of national conferences such as this one which is concerned with the Rehabilitation of Handicapped Children, one cannot view the complete program without developing within oneself a profound feeling of gratitude for living in a country where the dignity and rights of all children and adults, regardless of how severely they may be handicapped, are recognized. In addition, every possible effort is made to provide them with the necessary helps that will enable them to "carve out" a place in life that will bring happiness and security to them personally, and make it possible for them to be self-respecting, contributing members in a free democracy.

"Such a meeting as this also reminds us of the great complexity of the human being which includes not only his physical, emotional, moral and intellectual capacities, but also of his total environment of which he is in a very real sense a part. The professional training and experience of the speakers on today's program bear evidence of these facts and, to some extent, show how they are taken into consideration in planning programs for handicapped children.

"On behalf of the Superintendent of Schools and myself, I would like to express our deep appreciation to the National Rehabilitation Association for the honor that has come to us by the holding of this conference in New York City. I would be remiss in my obligation also if I did not take this opportunity to express our deep appreciation to the New York State Division of Vocational Rehabilitation, and particularly to the members of the staff of the New York City office for the very valuable and enthusiastic cooperation they have given to the children in our schools over a period of many years."

Medical Aspects of the Education and Rehabilitation of Handicapped Children

ALBERT B. KAISER, M.D.
Health Officer, Rochester, New York; Professor of Child Hygiene, School of Medicine, University of Rochester

Rehabilitation of children with physical defects has been undertaken for a long time. New techniques in surgery and a better understanding of physical medicine have advanced considerably the rehabilitation program in children. In some primitive countries no rehabilitation problem exists, especially for the correction of congenital defects. About twenty years ago, while on an exploration trip in central Africa I had the opportunity to observe many native children

and was surprised to find none with noticeable physical defects or malformations. From reliable medical authority I learned that it was the custom of these primitive natives to destroy soon after birth any child with a noticeable physical defect. Fortunately, such an attitude does not exist among many people. In general, there has been an increasing interest in the early recognition of physical handicaps for the purpose of prompt restoration of impaired function.

Significant physical handicaps have been either known before the child entered school or were discovered at the time of the physical examination on entry into school. Medical or surgical treatment was usually advised if it seemed indicated and in many instances special school facilities were made available depending upon the nature of the disability. Though attempts were made to rehabilitate the child, the main objective of the program was to give the child the best opportunity for scholastic training in spite of his disability.

Progress in the techniques of plastic surgery, orthopedics, neurosurgery and more recently in cardiac and pulmonary surgery, has given new impetus to earlier treatment and a broader approach to the correction of physical defects. Anatomical defects considered impossible to correct are now in the area of remedial conditions. The phenomenal results accomplished in the restoration of extensively impaired functions in service men and industrial workers has paved the way for similar procedures in infants and children with comparable loss of function due to congenital defects or to disease such as cerebral palsy or poliomyelitis.

The rehabilitation of the handicapped child should begin soon after birth. It is of great importance to recognize defects early so that health authorities may know in whom such defects exist and be able to assist in the correction of such impairments if and when it is necessary. In some states provision is made on the birth certificate for the recording of recognizable defects. Frequently defects are not noticeable until later, but at whatever time they appear effort should be made to bring them to the attention of a physician. In most urban communities official and voluntary agencies are prepared to assist parents and physicians in seeking advice and help. Children living in rural and more remote areas can usually obtain consultative service from specialists assigned for this purpose.

The high incidence of communicable diseases and the frequency of severe nutritional disturbances focused the medical attention primarily on these conditions. Now that substantial progress has been made in the control of these diseases, intensified emphasis can and should be placed on physical defects and especially those that lead to impaired function. It should be the concern of the public health nurse in visiting infants and preschool children to ascertain from the parents if any abnormality exists. Unless that is done needy cases may be overlooked and fail to get to the physician early enough to give the child the best opportunity for early rehabilitation.

When the child with a physical handicap is known, immediate steps should be taken to give him the benefit of medical consultation. In most instances the evaluation of the impairment should be made by a physician especially qualified in the several fields concerned with such defects. Where private medical and specialist care cannot be obtained, the existing hospital clinics should be utilized and the financial assistance of agencies set up for that purpose should be sought. Of utmost importance is the follow-up procedure. Not only should the surgical result be critically reviewed, but every available aid should be offered the child in regaining or in establishing useful function of the impaired organ. This will require long and arduous physical therapy and a program of rehabilitation under the direction of skilled therapists. When the child enters school, facilities should be made available to continue the rehabilitation if not already completed.

Experience has shown that, as far as possible, children with handicaps should not be segregated in special schools nor in special classes unless the training they require cannot be carried on in a regular class. Under this plan a high percentage of physically handicapped children can be wholly or partially rehabilitated. It can be truthfully stated that no community is fulfilling its obligations to its children unless it provides for an effective case finding service, competent physicians to supply the medical and surgical procedures, an efficient and complete rehabilitation service and an educational system that will properly place these children in school and carefully direct all aspects of their physical and mental training. If this process starts early in life and is carried on during the school period, a reasonable assurance of rehabilitation can be given the physically handicapped child.

Trends in the Education of the Handicapped Child

ROMAINE P. MACKIE, Ph.D.
Specialist, Schools for the Physically Handicapped Child, United States Office of Education Washington, D. C.

The topic presents a real challenge because *not all* that can be done for handicapped children of school age is being done today. The school years are very important ones in the life of any child. They are even more important in the life of disabled boys or girls, for these years frequently afford the time for most effective corrective and preventive work. The home, together with the school, the church, and other community agencies can, if it will, surround the child with the environment which will enable him to develop as normally as possible. The home bears the first responsibility for providing opportunities for optimum growth of the child. Next to the home, the school occupies a unique position, for it is in the school that the child will normally spend much of his early life. His physical, mental, and social development will be influenced by what goes on there to a far greater extent than is usually realized.

The broad general goals in a good educational program for handicapped children are the same as for all children, for they have the same basic needs. These goals, however, are more difficult for the disabled boy or girl to attain. The schools must make the necessary adjustments and provide the needed special services if the boy or girl is to develop in accordance with his potentialities. In a time when schools are broadening the concept of education in order to foster the all-round development of every child, it is the duty of the school to provide the necessary services for the handicapped child so that his adjustment will be as good as possible.

How then can the school years be used advantageously? Before we deal with this broad problem other questions must be answered, for example: Who are the children in need of special help in school? Are adequate educational facilities available in the United States? How do school systems now make adjustments for those handicapped children enrolled in school? What are some of the broad trends in the United States which reflect the interest of citizens in exceptional children. What are the most serious gaps? How can handicapped children and youth be better served through closer coordination of services and through better cooperation between agencies?

Who Are the Children in Need of Special Help in the Schools?

The boys and girls who have very special educational needs are referred to by the Office of Education, Federal Security Agency, as "Exceptional Children." The term "Exceptional" includes those who are: mentally deficient; mentally gifted; socially or emotionally disturbed to the extent they are handicapped; and physically handicapped, including crippled, cerebral palsied, blind and partially-seeing, deaf and hard-of-hearing, speech defective, and those children with special health problems such as the cardiopathic, the diabetic and the epileptic. The term "Exceptional," it is noted, embraces the gifted child. Unfortunately, few of our school systems provide the challenging opportunities and training through which the gifted child would profit so richly and which would enable him to give back to society in proportion to his endowments.

According to conservative estimates, there are between four and five million exceptional children in the United States. Of this number, approximately half are physically handicapped. In round numbers, another million and a half are either mentally deficient or are children who suffer from serious social or emotional problems.

Are Adequate Educational Facilities Available for Exceptional Children in the United States?

No, even though great progress has been made during this century in providing educational opportunity for exceptional children, the majority of these children are not being adequately served by the schools. Many boys and girls are in hospitals, where little or no schooling is provided; others are confined to their homes and not supplied with home teachers; still others who should attend special day school classes are not going to school, because special services or classes do not exist in their home school districts. Many thousands of these children are able to profit by schooling; but without special services they are unable to get to, to remain in, or to profit by the school program. If the school years are to be used advantageously every child with a physical and mental limitation or with an emotional problem should be in a class suited to his needs.

How Do School Systems Make Adjustments for These Handicapped Children Enrolled in School?

Our schools are making an increasing

effort to enable handicapped children to be in a school group. When this is not possible, effort is being made to take the school to the child wherever he may be — in the hospital, in the convalescent home, in the residential school, and when no group plan is possible, in the child's own home.

Many, but not all, exceptional children can and should eventually be assimilated into the regular classes, although many of them will still need adjustments and guidance. Special classes in day schools are somewhat parallel to hospitalization. When a child's best development can be attained in a special class he should be placed there. He should, however, remain in such a group (just as he would remain in the hospital) only so long as intensive and specialized care is essential to the furtherance of his education and total growth. If the school years of the handicapped child are to be used advantageously, a variety of services must be offered and necessary adjustments made by the school systems. A program of special education should be a flexible one. It should consist of services scaled to meet varying needs of children.

What Are Some of the Broad Trends in the United States which Reflect the Interest of Citizens in Exceptional Children?

There are trends across the nation which indicate that remarkable progress is being made. Evidence is shown by: (1) increased State legislation for the education of exceptional children; (2) the increased numbers of State directors and supervisors in special education; and (3) the increased facilities for teacher education in the various fields of special education.

State Legislation for Exceptional Children. Programs for the education of exceptional children, including the various types of handicapped, are conducted locally under State laws and State local regulations. In recent years, a great many laws have been passed by the States making provisions for the education of various types of handicapped children. Significant features in these laws are: Widening of the group of children to be served both as to age range and as to type of disability; provisions for State consultative and supervisory service; and the setting aside of State funds to assist local school districts in maintaining their classes and services for handicapped children. Today, as never before, the rural districts, as well as the urban districts, are taking advantage of help from State departments of education.

A study has recently been made of State legislation for "exceptional children." The results of this are available in an Office of Education bulletin entitled, "State Legislation for the Education of Exceptional Children." * In this study there are many interesting findings, among them the following:

> "Forty-one States, the District of Columbia, the Territory of Hawaii, have legal provisions authorizing or requiring local school districts to make special educational provisions for one or more groups of exceptional children.
>
> "Thirty-four of the States give supplementary financial aid to local school districts providing such special educational facilities.
>
> "Twenty-three States have legally set up State supervisory and consultative services to guide the State-wide program in special education and 11 more States, the District of Columbia, and the Territory of Hawaii have established such service under the general powers of the chief state school officer.
>
> "Every State has made some provision for the residential care of blind, deaf, and mentally deficient, and delinquent youth."

While much progress has been made through the State legislative provisions, there are still glaring deficiencies in programs operating under these laws, for few States have made provisions which reach all handicapped children. The trend, however, towards broader legislation in behalf of handicapped children indicates the wish of the American people to provide for these children and shows the confidence of the American people in their schools.

Personnel in State Departments of Education. Another trend which indicates progress in educational planning for the handicapped is the unprecedented increase in the number of persons employed by State departments of education to supervise and give consultative service in the various fields of special education. Within the last decade, the number of States offering such service has more than doubled and the number of persons engaged in the work has multiplied several times. As late as 1940, only 16 States had a person in the State department of education responsible for a State-wide program for exceptional children. However, as of November, 1950, 35 States, the District of

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* Martens, Elise H. *State Legislation for Education of Exceptional Children.* Washington, D. C., Federal Security Agency, Office of Education, U. S. Government Printing Office, Bulletin No. 2, 1949.

Columbia, and the Territory of Hawaii, each has at least one person concerned with the education of such children on a State-wide basis.

Teacher Education. Another significant trend, possibly basic to the whole program, is the increase in facilities for training teachers of exceptional children. Today a few colleges and universities offer rather complete curricula in special education — that is — they offer a series of courses in several areas. Some colleges and universities provide fairly complete training in one or two areas. A still larger group of colleges and universities give a few courses in such an area as "speech correction." A number of colleges and universities offer general introductory courses which serve merely as an orientation to special education.

The Office of Education has recently cooperated with the National Society for Crippled Children and Adults in a study of the problem. The findings of this study appear in a publication entitled "Opportunities for the Preparation of Teachers of Exceptional Children." This pamphlet reports the names of colleges and universities that give training in special education and it also furnishes descriptions of the courses offered by these institutions.

What Are the Most Serious Gaps and What Can Be Done?

According to "Statistics of Special Schools and Classes for Exceptional Children, 1947-48,"** the total number of children reported to be receiving special educational services was 441,820, which is only about 12% of the number of children estimated to be in need of such services.

Special educational provisions exist to a very limited extent in rural areas. Most of the urban centers have a reasonable knowledge of what to do for exceptional children but new ways will have to be developed if children in sparsely populated areas are to have suitable schooling. State departments of education and, in a few instances, counties are adding consultants and special supervisors to their staffs. These people working with other professional specialists, such as the vocational rehabilitation officer, should be able in the future to find ways of making the school years of the disabled rural child profitable to him.

Provisions for the education of handicapped children under age six are still extremely limited in spite of the evidence of value in nursery school and kindergarten opportunities. Young deaf and cerebral palsied children seem to gain especially from such experiences; young mentally handicapped children may *also* benefit from educational programs under age six, although more research should be done in this latter area before conclusions can be reached. The pre-school class affords a center for social, physical, and intellectual development, and a nucleus around which a good parent education program can develop.

The adolescent and the young adult group are often equally neglected by the schools. All too often, special classes and services are provided for the physically and mentally handicapped only through the elementary school years. The period of adolescence for the handicapped child is a critical one. During this time, the adolescent will be concerned about his future vocation and social participation with his peers. Special services should continue and perhaps be intensified at this period. For example, this is the time when the services of the schools and the vocational rehabilitation agency (which naturally supplement each other) should be more closely coordinated. In order to serve the handicapped adolescent most effectively, representatives of the school and vocational rehabilitation should: Give counseling, arrange conferences, confer with other professional people and parents and otherwise cooperate in the guidance of the handicapped youth.

If the problems discussed in the foregoing paragraphs are to be solved, educators and parents must face: (1) the unmet needs of the rural child, (2) the need for more service for children under age six, and (3) the problems of the adolescent and youth. In addition, there must be a new focus of attention on children suffering from conditions such as epilepsy, mental deficiency, and serious social and emotional problems, and the urgency for better coordination of services.

It is obvious that if the school years are to be used advantageously, the schools must serve *all* children and not just a small percentage. Every individual has a right to opportunity for development and self realization. Every person also has an obligation, especially in these critical times, to contribute as fully as possible to the nation.

** Martens, Elise H. *Statistics of Special Schools and Classes for Exceptional Children, 1947-48.* Washington, D. C., Federal Security Agency, Office of Education, U. S. Government Printing Office, 1950.

In this hour of trial, it, therefore, becomes increasingly important to treat and educate every salvageable handicapped child and young person in order that he may be capable of contributing not only to his own welfare but also to the welfare of the nation.

Medical Program for the Handicapped Child During His School Years

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A first step in rehabilitation of society's handicapped persons' problem is prevention, prevention of those handicapping conditions whose causes are known and minimizing of the permanent disability that follows the conditions that have passed the first barrier of prevention.

There should be medical participation in all stages of the care of the handicapped so as to give sound basis to the non-medical adjustments that become necessary. Not only in the beginning but in all stages of care and management there should be medical reappraisal in order to give a more dynamic approach to the needs of the individual at different ages. It is often difficult for workers in different professional fields to understand each others' specialized terminology. Mutually understandable terms should be used in exchange of information between the physician, the school teacher, the rehabilitation worker and others. The medical report to the teacher and to the rehabilitation worker should be in terms of physical capacities related to the modification of schooling or work that is under consideration. On the other hand the teacher and the rehabilitation worker should present to the physician the job description in terms of physical demands rather than by title of position.

Adjustment of school program can be the beginning of a long plan of vocational rehabilitation for the handicapped child if such adjustment is not merely one of restriction of activity but also one of added adaptive program. Vocational planning should be started early, particularly in the school child whose handicap is well known to the school health service. At the end of the elementary grades a planned conference should be held for each such child and should include the health, educational and rehabilitation workers. By the time a child has selected his high school he has already started determining his career and at the point of actual employment it is extremely difficult to reorient him to more appropriate attitudes concerning his future work.

The Teacher's Role

MILDRED SHRINER
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Across the nation today because of a better understanding in knowing how to meet the educational needs of all children, because of the broad general trends which Dr. Mackie has described, physically handicapped children are having a better opportunity to grow up into adulthood as useful citizens who have a place in society. Gradually special classes are securing a number of educators and teachers who are aware of and know how to provide an environment which will bring the overall growth and development of a child — socially, emotionally, intellectually and physically. In the educational field today there are teachers who recognize: 1, that physically handicapped children are like normal children in more ways than they are unlike; 2, that physically handicapped children should be educated as nearly like normal children as possible; 3, that physically handicapped children's needs are acute and emphasis and adaptions of the educational program should be made according to individual needs, capacities and limitations of the child.

We as educators and Vocational Rehabilitation workers can learn much if we stop to listen to a child and what he has to tell us about his education. May I give you a few examples?

Kenny, a five-year-old boy who attended a pre-school for crippled children, said to his doctor when told he had a cold and must stay home, "But I must go to school tomorrow. Something important happens every day." At that time the children had planned and constructed a large yellow taxi cab. They intended to do the paint job the next day. Kenny felt very essential in this whole project, as did every other child in the group.

Not only in nursery school but all through education we must strive to keep alive this zest for living and doing — this feeling that something important happens every day. Each child, regardless of his handicap, can be helped to feel that he is needed and accepted in his group and has a real contribution to make. Then there is a reason to stretch up and grow, to explore the world

and people about him. When a child catches this feeling and is awakened to all about him, he reaches out to meet life. Then we have set the stage for learning and for living.

When planning a school program it must fit the child, not the child fit the program. There should be a great deal of flexibility in a school program because the school to the majority of physically handicapped children is their whole world outside the home. It is one place where they really feel accepted by other children and adults. It is the teacher's responsibility to nurture them along so in time they feel secure in the outside world. This being so, the classroom should be filled with interests where each child can explore, discuss, delight in his work and give his best. He then learns how to help the whole class and to help and do for others as well as for himself. Through an understanding teacher he may be helped to develop into a vital, living, human being who reaches out to the world outside his home and be one who looks at life and people as something to love rather than hate. He may learn not to withdraw within himself, but to participate according to his ability. He may be helped to develop a sense of personal worth and to cut down his fears, anxieties, and self-consciousness. This cannot be developed in the stilted classroom where only silence reigns, where children are expected only to obey commands and wait their turns to recite or talk.

Zest for living and meaningful learning does not happen in the classroom where only reading, writing and arithmetic are taught; where children wait only their turn to recite or go into occupational therapy; physical therapy and speech therapy. Language development does not come in silent, stilted classrooms.

In our classrooms we must provide a program where there is a need to hold up the head, a need to sit, creep, stand or walk, where there is a need to talk, where there is a need to use our hands, where there is a need and a desire to become independent. We must provide this zest. If we do not do this, then in the end the child will give up trying.

In planning such a program the child should not be made to feel that it is so special. For example, Jane, a spastic child, had attended a pre-school for cerebral palsied children beginning at age three. In later years at age eight, she attended a moving picture which had been taken during her pre-school years. Following the movie she exclaimed to her former nursery school teacher, "All the time we were playing music and rhythms, telling our big news, playing house, playing with toys, swinging, going on picnics, excursions and even telling stories, we were having exercises in physical therapy, speech and self-help." The teacher turned to her and said, "Yes, in a way you were having exercises, but it was more than that. You were being helped to do the things that all children do so that they may learn and may enjoy life."

Teachers under medical supervision can supplement the therapy program and, in turn, the therapists can supplement the educational program. No phase of the child's development and treatment can be isolated. All who play a role in the child's education and treatment are members of a team, in helping a child develop all his potentialities for effective living.

Another responsibility of a teacher and all other members of a team working with a child is to help him to accept his limitations and yet recognize his abilities. This acceptance must have its roots in the early formative years.

For example: John, age 5, who had attended a pre-school center for cerebral palsied children, was sitting on the steps in front of his home. An eight-year-old boy, new to the neighborhood, stopped beside him and said, "Say, what's the matter with you. Why can't you run and play ball or why don't you talk like me?" John squared his shoulders and replied, "Why, I have cerebral palsy." "What's that?" said the boy. John replied, "It's my muscles. They don't do as I want them to do. But you know I go to a school for cerebral palsied children; I have doctors, a physical therapist, occupational therapist, speech therapist, a teacher, and my mother goes to school one day a week, too. They're all helping me to use my muscles the right way so I can help myself. I won't ever be able to run as fast as you do or throw a ball as far, but oh, there will be so many things I can do."

In school John had had many opportunities to meet success in obtaining goals within reach and at this early age he also was establishing a realistic attitude towards his handicap.

The story just told was reported to John's teacher by his mother who had overheard the conversation through an open window. If she had not been under a good parent education program along with John at school, she would have probably interfered with the discussion.

One of the major roles of the classroom teacher is a friendly working relationship with the parents. In working with parents we cannot talk them out of their disturbed feeling about their children but we can gradually, through everyday sharing of experiences together, help them to understand their child. The teacher may help parents to love and accept a child as he is rather than what they thought he would be. In working with parents we must accept them as they are and help them to gradually grow along in their understanding. If we have this acceptance of parents then they in turn will seek and accept our advice, recommendations and assistance in adjusting to their special problems.

When does Vocational Rehabilitation begin? It has its foundation beginning in the early years of life at a time when a child has curiosity about the world and has a desire to explore all its different avenues. It has its beginning in hobbies and interests which are explored to their fullest. In our classrooms today and tomorrow we hope that all physically handicapped children may have the opportunity to have teachers who recognize and know how to deal with interests and goals; with attitudes which we want children to develop toward getting along with other people, ability to meet new situations and a wholesome acceptance of their handicaps. We hope that all teachers and workers with children will seek and appreciate the best in a child and give the child's best its chance.

For further information regarding the education of the physically handicapped, may I refer you to two booklets:

"Crippled Children in School," by Romaine P. Mackie. Bulletin 1948, No. 5. Federal Security Agency — Office of Education. Price 10 Cents.

"Education of Crippled Children in the United States," by Romaine P. Mackie. Leaflet No. 80. Federal Security Agency — Office of Education. Price 10 Cents.

Both are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

A Guidance Program for the Handicapped Child and Youth

MARION MARTIN
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Vocational rehabilitation of the school child begins the day that treatment begins, continues through the school days, and enters its final phase with direct vocational counseling and training, and achieves its end when the young person enters employment. If maximum treatment leaves the child without the use of hands and the speech is unintelligible we have little chance of finding a door to employability

If through the school years we have a child who cannot measure up to any acceptable standards of performance, and every act is far below average for the group and the teacher has utilized not only good teaching techniques but sound personal approach to the problems of the child, is the teacher helping by false encouragement, making him think, no matter how poor his performance is, that he is a satisfactory member of the class?

We find the young man of seventeen or eighteen, who through his school days has made rough copies from comic drawings or cartoons, comes to the Vocational Rehabilitation agency thinking that he is ready for a career as a commercial illustrator or cartoonist. Have you done all that is possible to bring about a life adjustment of this young man by misleading him through his school years as to his capabilities and opportunities? Could you not have encouraged him in his hobby and made clear the demands in the field of arts? This young man may very well be employable but may have little ability to absorb training in the arts.

The first problem the vocational rehabilitation worker has is to bring to him the realization of job possibilities which he can do, after helping him to recover from the disappointment that his dream can not be fulfilled. Many times we find a report that a young man or woman has had training in typewriting and are referred for the purpose of placement as a typist, or the teacher may realize that while the student has had typewriting, he can not measure up to commercial standards; while the student thinks that because he has had the school training in typewriting that he might find suitable employment as a typist. It is rare to find a boy or girl who can tell you that they are a touch typist and can type forty or fifty words per minute. Often, especially if they have been very sheltered, they know little of the commercial standards required for the clerical field. If you can grade the child according to the standards of a regular typing class without putting any undue emotional stress on a severely ill young person, both the student and the teacher would know through the gradual progress whether he would be

ready to be employed in the field, whether they could expect him to become employed in the field with extra practice, or whether this was unsuitable work for him.

The teacher of the handicapped child has all the usual teaching problems plus the problem of viewing the child not only as to his problems as a handicapped person but as to whether or not he can ever expect to perform in a competitive society. Years of encouragement which will end with a young man or woman at the age of eighteen or twenty discovering that they are totally unemployable or goals which they have set are too far away from everyday life, are disastrous for the young person. Vocational Rehabilitation cannot create a job for every person.

We find the referral of a twenty-year-old spastic quadraplegia who has spent most of his life in hospitals and at the end of years of intensive treatments cannot function at any level except partial self-care within the home. This type of referral ends in heart break for the young student.

We have an instance where teaching in a special class has resulted in good training for a student which can be transferred to his employment. A young man with limited functioning in his lower limbs and some weakness in the upper extremities because of long years of hospitalization only completed the eighth grade at the age of eighteen. During his years in school he received fundamental training in the tool subjects. In addition to this, his hobby in the field of radio has now brought about his acceptance in technical training in this field. We have an exceptional boy with a good background from a hobby point of view. Training in this field was feasible because preliminary shop experience was afforded him in his home and with his friends, and although there is difficulty in ambulation, the family's ability to assist in the financing of a business with other young men trained in the field, the young man's unusual mental capacity to perform feats and mental arithmetic have made his technical training possible.

Here is an instance where an unusual set of circumstances have resulted in successful training. This does not mean that every young man with a similar disability can be trained and become employable in this field. It merely is an example of planning on an individual basis. While the plan can be made for one person, it does not follow that all young severely disabled students can find employment in this field.

There were other examples of case situations and discussions of the problems of the teachers in setting up suitable programs for students and great stress was placed on the role of the teacher in preparing the child for vocational adjustment.

There could not be any list of occupations to match of the disabled, as each individual is judged on his own capacities.

The concluding remark by Dr. Joseph J. Endres was "it should be remembered that the function of the school is to deal with groups and the physician and vocational rehabilitation agencies with individuals."

Session on

THE REHABILITATION CENTER

Wednesday, October 25, 1950 • Grand Ballroom, 9:00 A.M.

Presiding

GEORGE F. MOORE, JR.

State Supervisor, Division of Vocational Rehabilitation, Providence, Rhode Island

The Session Committee

CHAIRMAN, PRESIDING OFFICER

HENRY KESSLER, M.D., *Medical Director, The Kessler Institute for Rehabilitation, West Orange, New Jersey* • ALFRED R. SHANDS, JR., M.D., *Medical Director, The Alfred I. Dupont Institute of the Nemours Foundation, Wilmington, Delaware* • GRACE MAXON HEAGEN, *Executive Secretary, Rehabilitation Center for the Disabled, American Rehabilitation Committee, Inc., New York City.* JOSEPHINE BUCHANAN, M.D., *Chief, Department of Physical Medicine and Rehabilitation, Gallinger Municipal Hospital, Washington, D. C., formerly Director of the Woodrow Wilson Institute, Fishersville, Virginia* • CHARLES L. NEWBERRY, M.D., *Assistant Chief Medical Officer, Federal Security Building, Office of Vocational Rehabilitation, Washington, D. C.*

Introduction

MR. GEORGE F. MOORE, JR.

When the members of the committee planning this National Convention decided that there should be a session on Rehabilitation Centers they documented the fact that there is an increasing awareness of the need for Rehabilitation Centers on the part of persons interested in the welfare of the disabled.

Directors of State Rehabilitation Agencies, the Federal Office of Vocational Rehabilitation, hospital administrators, labor groups, legislators — all have been increasingly conscious of the value of the Center in providing for a coordinated approach by many professions to the physical, mental, vocational evaluation of disabled persons and in the furnishing of these services as required.

The Senate Committee on Labor and Public Welfare in reporting the "National Services for Disabled Persons Act" stated, "Expert witnesses from the fields of rehabilitation and medicine, such as Dr. Rusk, Dr. Kessler and others, were unequivocal in advocating more Rehabilitation Centers. These experts pointed out that the typical community organization of medical and vocational services is neither appropriate nor adequate for providing a combined program of such services for severely disabled persons. For example, existing vocational schools do not provide physical medicine and auxiliary services nor do hospitals provide vocational training services over an extended period of time. Nevertheless, the vocational adjustment of many severely disabled can only be accomplished by making available simultaneously to each individual the necessary physical medicine, vocational and psycho-social services integrated one with the other at a common center."

Last year Mr. Shortley, Director of the Office of Vocational Rehabilitation, and Mr. Sherer, who was then the President of the States Vocational Rehabilitation Council, agreed that a study of the problems of establishing Rehabilitation Centers would be of great value to the State-Federal Program of Vocational Rehabilitation. Accordingly, in March, 1949, Mr. Sherer appointed a committee of three to undertake this study.

The final report of this committee was made at the States Council meeting Monday. In part the report stated that "a convincing case for establishment of comprehensive centers in adequate number throughout the country is found in their major role in expediting the Rehabilitation of the Severely Disabled. This task has been laid squarely at the door of Rehabilitation Agencies and, if it is to be accomplished, then special rehabilitation facilities must be made available. Considerations of human rights and economic and social well being dictate such a course."

Speaking as a Director of a State Agency I feel very strongly that the welfare of our programs demands that we accept the primary responsibility for the establishment and operation of Rehabilitation Centers and wherever it has been determined that there

is a need for the establishment of Rehabilitation Centers we should give leadership to the task of establishing them and operating them, if practicable, as units of our program.

I believe that the operation of Rehabilitation Centers by State Agencies will effect an enrichment of our programs, it will strengthen our programs and it will refute much of the criticism of our programs; as for example, the statement made by a representative of a labor organization when he appeared before the sub-committee of the Committee on Labor and Public Welfare — the statement that we serve as hardly more than a holding company through which funds are received and dispersed to medical and other agencies, that we participate in this program only on a contract basis. It will impugn the charge that we have failed to provide our services to an adequate number of the severely disabled, that we are concentrating on easy cases. One person well known in the field of Rehabilitation told the committee studying his Center that he believed that State Agencies in their program of physical restoration are for the most part just providing for a herniotomy and a pair of overalls.

Of course, we know these statements are not true and that they were made in ignorance of the facts of State Agency operation. We have to admit, however, that our accomplishment in rehabilitating the severely disabled group has been far from satisfactory, and the reasons are obvious.

We all know that the needs of this group are so varied and complex as to be inadequately met by providing the usual Rehabilitation procedures and facilities.

Furthermore, the excessive cost of services for the severely disabled in view of limited budgets is a factor in limiting the number of them who could be taken into the program. At the same time we are constantly pressed to extend our services to the larger numbers of the disabled who though less severely handicapped are just as sorely in need of Rehabilitation services.

The members of the committee who have worked up this program believe that these blocks to adequate Rehabilitation service for the severely handicapped can be eliminated through the establishment of Rehabilitation Centers and they hope that this session will be more than instructional, that we all will not only learn more of the techniques of a few of the basic services of Center operations but more importantly that the program here this morning will engender and stimulate enthusiasm for the establishment of Centers.

This morning we will present three of the basic Center services — considered essential in rehabilitating the severely disabled.

The first of these services to be discussed is the first step on the road back for the severely disabled — physical rehabilitation. It is the foundation on which the rest of the program is built.

Psycho-Social Service

JUSTIN L. GREENE, M.D.
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As rehabilitation has advanced, it has become increasingly evident to workers in this field that the emotional problems and attitudes of the client are of great importance in the success or failure of his rehabilitation program. The methods used to help the client with these emotional factors vary with the type of patient and the scope of the rehabilitation program. This subject is extensive. I shall not attempt to cover it entirely, but am limiting myself to the description of the role of the psychiatrist in a specific setting, the Rehabilitation Center for the Disabled of the American Rehabilitation Committee, Inc.

The Center is a relatively small facility with a strictly defined program. It fills the gap between the hospital and either employment or intensive specific vocational training. It consists of a group of shops and offices where the client is rehabilitated through the performance of the actual work he is planning to do. The staff consists of an executive secretary, a clinical psychologist and four shop supervisors, all of whom are full time, and of a part time group of ten orthopedic-medical and psychiatric consultants.

The case load in 1948 consisted of 121 orthopedic cases, 56 miscellaneous (tubercular, cardiac, etc.) and 43 psychiatric (21), neurological (9) and mentally retarded (13). It is of interest to compare this last figure with the case load in the first eight months of 1950 when there were 77 psychiatric (33), neurological (14) and mentally retarded (30) cases treated.

There is a panel of six psychiatrists at the Rehabilitation Center for the Disabled. The panel supplies a psychiatrist for consultation once a week on a voluntary basis without remuneration. This psychiatrist works as an integral member of a team consisting of the

executive secretary, the psychologist, the workshop supervisor (when necessary) and the representative of the referring agency.

The psychiatrist may be called as a consultant for the physically handicapped client only when requested by the clinical psychologist either after the initial interview or during the course of treatment. This referral is made after obtaining the consent and approval of the referring agency. When this type of referral is made, the procedure is the same as in the following group of cases.

The psychiatric cases are all seen by the psychiatrist at staff meetings with the team mentioned above. Various types of situations arise which require different techniques.

The intake conference is probably the most important situation in which the psychiatrist participates. Each case is prepared for presentation to the staff meeting by the clinical psychologist. The referring agency is requested to make available for the meeting a psychiatric report and all pertinent medical, vocational, social and educational data. A psychometric study is also requested in most cases. After he has received this information from the referring agency, the psychologist conducts an intake interview. At the staff meeting the psychologist presents the case on the basis of all this material. The client is then interviewed briefly by the psychiatrist in the presence of the other members of the staff. He attempts, in this manner, to bring to life the reports which have been read and to bring out the more salient symptoms. This procedure is of great importance in clarifying the statistical diagnosis, estimating the prognosis and helping to reach the final decisions. The interview is followed by a short discussion of the case by the members of the staff. The psychiatrist summarizes the entire situation and decides whether to reject or to accept the client. In the latter case, the type of work assignment is outlined, any necessary precautions and controls are prescribed and the work objective is described. The report of the intake conference is of great importance and is made available to all the workers who will have contact with the client at the Center.

Another situation where the psychiatrist is called upon is in the elaboration of periodic progress reports. The frequency of these further contacts is determined (subject to revision) at the intake conference. The progress report is also the result of the staff meeting. The reactions, symptoms and progress of the client, particularly in relation to the environment of the Center, his work habits, personal relationships and work capabilities are described by the clinical psychologist and the shop supervisors. The client is again interviewed by the psychiatrist and as a result of this conference, any necessary modifications of the initial diagnosis, prognosis and plans are made.

A similar procedure is followed when the decision to discharge a client is made.

In certain exceptional situations, the executive secretary or the clinical psychologist may call the psychiatrist for an emergency consultation.

Any member of the psychiatric panel may refer clients directly to the Center.

In working with psychiatric clients at the Rehabilitation Center for the Disabled, it has become apparent that in most cases the work therapy program can become most effective only when it is carefully coordinated with the other resources of the community. The client must have made sufficient progress in his psychiatric treatment program to be able to accept work therapy. In most cases concomitant psychotherapy must be arranged for in outside clinics. A clear-cut program to follow the treatment at the Center must be worked out in such a manner that the client can proceed without loss of time from the rehabilitation center to his job or vocational training school.

This program for the rehabilitation of psychiatric cases has met with great success. The number of clients treated has increased each year. It is the feeling of the entire staff that the whole subject is as yet in its infancy and that we are all learning new techniques in the management of the psychiatrically disabled from our experiences at the Center.

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It is recognized that rehabilitation centers vary greatly in their aims, methods, staff and physical equipment. The program at the Institute of Physical Medicine and Rehabilitation aims to fulfill the goals of rehabilitation defined by the National Council on Rehabilitation. It is patterned on the plan drawn up by the Baruch Committee on Physical Medicine. The Baruch report provides separate units in clinical psychology and guidance. However, the functions of both sections overlap considerably and for reasons of practicality and convenience it has been found desirable, at the Institute, to combine both units into the Psycho-Social and Vocational Service. This service is

staffed by four full time vocational psychologists, i.e., by clinical psychologists who also do vocational guidance. It also employs the services of social workers and specialists in the areas of speech therapy, recreation, prevocational and vocational training. There is also available psychiatric study on a consultation basis.

It has been the Institute's experience that while the disabilities treated are primarily physical in nature, the entire gamut of mental pathology, ranging from mild to severe, is encountered. The personality of the patient is modified by the effects of the disability. The resultant dynamics determine the individual's attitude toward rehabilitation and thus affect the degree of success he will achieve in the rehabilitation process. It follows, therefore, that a knowledge of these dynamics is desirable in treating the patient and in planning the program.

For the purpose of analysis, it is convenient to think of the psychological factors in physical disability as follows:

1. *The personality of the individual as it existed prior to the disability.* In some cases this may be related to the etiology of the disease. The individual's reaction to his disability is based on this factor. The personality of the individual following the disability, even where organic factors are involved, can only be a modification of this earlier pattern.

2. *Adjustment mechanisms which the individual adopts as a result of the disability.* As indicated above, these will undoubtedly be determined by the pre-disability dynamics. However, latent tendencies which did not show up formerly may become overt as a result of increased tension. The traumatic neurosis following injury or shock may well be an example of this.

Behavior which results from secondary gains is relatively common. Financial compensation which provides fleeting security produces some paradoxical results in the attitudes and motivation of many patients. Hysterical elements are often found to be superimposed upon actual physical disability, with the line of demarcation extremely difficult to locate. Defense by withdrawal, by dependency and by aggression is common among the physically impaired.

3. *Psychological factors which result from lesions of the brain.* It is generally recognized now that no two individuals will react in identical ways to similar lesions. The differences must be attributed, at least in part, to the original capacities of the individual. Since physical rehabilitation is primarily a learning process, it is essential to know what capacities the individual has with which to work. Therefore, when working with the brain damaged and with the aged, particular attention must be paid to evaluating such factors as loss of memory, disorientation, confusion, inability to think in abstractions, aphasic disturbances, and impaired sensorium in general.

It has been the Institute's experience, then, that these three categories are interrelated and interacting. In actual practice, it may not be possible to separate one from the other. However, the total picture is of utmost importance. At this stage of development, it is difficult to establish specific relationships between disability and adjustment, if indeed such relationships exist.

In the psychological evaluation of the patient, three factors appear to have prognostic value, namely motivation, adjustment and intelligence. Motivation and adjustment are so closely related that they are virtually inseparable.

Motivation refers to the physical, social and economic goals which the individual sets for himself. The patient who for one reason or another has no goals has no reason to improve himself. He who sets his sights too high or whose ambitions are unrealistic must eventually come down to earth if any degree of successful rehabilitation is to be realized. This process is all too often accompanied by depression and apathy. If the individual cannot be brought to face reality and to work within his limitations, there is little chance for his success.

Adjustment in physical disability may be considered the resultant of the three psychological factors discussed above, i.e., personality as it existed before the disability, adjustment mechanisms adopted because of the disability, and the effect of brain lesions, when present. Good adjustment is the catalytic agent which permits the efficient translation of motivation into action. Poor adjustment does not permit the process to get under way. As an example, the individual with abnormal body concern may magnify the extent of his disability to the point where he is unable to picture himself as rehabilitated. The better adjusted individual will look forward to the things he will be able to do, rather than worry about the things he cannot do. It may be expected, therefore, that changes in adjustment will have to precede the other aspects of the rehabilitation process in some cases.

It has been pointed out that rehabilitation is largely a matter of re-education and train-

ing in skills. Therefore, ability to learn is a prerequisite. Past experience indicates that high intelligence is not necessarily positively correlated with successful rehabilitation, but that where learning ability falls below a certain minimum, little can be accomplished.

The work of the psychologist at the Institute consists of: (1) a routine procedure which is carried through initially for all patients, (2) a more individualized procedure which is dictated by the specific disability of the patient and his particular problems as they are revealed by the screening process or show up during the course of treatment, (3) general professional work which is not directly related to the treatment of patients. (These will not be discussed here.)

Routine procedures consist of the following activities:

1. With few exceptions all patients are seen for preliminary psychological screening. The patient is first interviewed to obtain personal data, family background, educational and vocational history, and his attitude towards the disability and towards reemployment. Medical history and diagnosis are obtained from the physician's report. Additional case history material is contributed by the social worker. Finally, a short battery of psychological tests is administered.

All this material is then collated to evaluate the basic triad of motivation, adjustment and intelligence. Further treatment of the patient is based on these findings and on any deficiencies which are noted.

2. At semi-weekly evaluation meetings each new admission is presented to the entire staff for discussion and the preparation of a program. Here the psychological findings are reported and recommendations made for the handling and training of the patient, based on the data obtained. The usual technical report of the psychologist may not be suited to the background of these individuals. Therefore, it is necessary to word the report in terms which this professional population can understand and make recommendations which are fairly concrete in nature, such as "this individual will learn better by demonstration," "this individual will perform better in a group" or "this patient will require constant repetition before learning takes place." At these meetings, reports of other staff members are presented, and indications for additional testing or for personal counseling are obtained.

3. As stated above, the patients treated at the Institute are those whose disability is primarily physical in nature; those with a disability which is primarily psychiatric are referred to other appropriate agencies. Although the Institute has a full-time psychiatrist on its staff, many rehabilitation centers will find it most practical and economical to have the psychiatrist function chiefly as a consultant. This would mean that the psychologist is charged with the referral of patients for psychiatric diagnosis or treatment when indicated. In either case, it is desirable for complete psychological reports on all patients to be sent to the psychiatrist for his use in treatment and research.

4. Where speech pathology is uncovered, referrals are made to the speech therapist. Family and social problems are referred to the social worker. In some cases, two or more members of the Psycho-Social and Vocational Department may coordinate their efforts in working with the same patient.

5. Patients who are poorly adjusted are seen for personal counseling. This is generally supportive in nature, though the particular technique will depend on the training and background of the clinician. The same methods are used with the disabled that are in use with the non-disabled.

6. Periodic interviews are held with the patient to evaluate his progress and to deal with any psychological problems that may arise during the course of treatment.

Individual procedures fall into the following categories:

1. Intensive diagnostic testing when this is indicated by the results of the screening process or when requested by the physician or other staff members who feel that psychological factors are inhibiting the patient's progress.

2. In cases where organic brain damage may be present such as hemiplegia, multiple sclerosis and trauma, and in the aged patient, where arteriosclerotic processes may have set in, additional testing is performed to evaluate pathology. Where pathology is indicated and it is felt that the patient will benefit from retraining, a program is planned in cooperation with other staff members.

3. When the initial interview indicates that a vocational problem exists, a battery of aptitude tests may be administered if needed. Recommendations are made to the occupational therapy section for pre-vocational tryouts and training. It has been found that occupational therapy is a valuable adjunct to the counseling procedure in that it supplements tests for the disabled in indicating how an individual compensates for his

disability. In addition to giving a measure of work tolerance, other important information is obtained such as work habits, ability to use tools and the patient's reactions to working in a social situation.

4. Based on all the material obtained, vocational counseling is carried on with the patient and eventually an objective is selected.

5. Individuals who are capable of working without additional training are referred to the J.O.B. (Just-One-Break) Committee. This is an organization consisting of prominent businessmen and their representatives. It was formed for the purpose of placing rehabilitated individuals in gainful employment. The fact that prominent individuals are actively interested in the placement of the handicapped helps overcome the average employer's resistance to hiring a disabled individual.

6. Individuals who need additional training or who can work only in sheltered situations are referred to the State Division of Vocational Rehabilitation or other social agencies. When an insurance carrier or welfare organization is sponsoring the patient's hospitalization and training, reports and recommendations are made to them.

In summary, there is an increasing awareness of the need for coordinated rehabilitation programs which will treat the patient as an individual rather than just treat his disability. Such a program can be of incalculable value to the individual, his family and the community in general. A team approach is needed, and the clinical psychologist is an important member of the team. The field is small at present but is growing constantly. Here is a new frontier for the psychologist to explore.

MARY W. DOUVILLE
Assistant Director, Social Adjustment Service, Institute for the Crippled and Disabled, New York City

Since the role of staff in any agency is defined by the structure and function of the agency itself, as well as by the professional training of the individual worker, a sketch of the Institute for the Crippled and Disabled will be helpful in understanding the role of the case worker as we define it. Ours is a multi-function agency offering overall rehabilitation services to the severely disabled. Our various activities in the interest of the client take place under one roof and we utilize a wider range of professional services and view rehabilitation as a composite service.

Function and Structure of the Institute for the Crippled and Disabled

Our aim is the "development of the physical, mental, social, cultural and vocational capacities of the disabled individual so that he may meet his fundamental life needs. It (the Institute for the Crippled and Disabled) seeks to prepare him to lead an economically productive, personally satisfying and socially useful life in a world and economy largely fashioned by and for the non-disabled." (Institute Annual Report for year 1948 and 1949.)

We serve the severely disabled. The predominant groups are those with residual orthopedic, neuro-muscular and cardiac disabilities. We stress the distinction between the disability itself and the reaction to it. We find the diagnosis in this respect equally as important as the medical diagnosis.

Service to clients is provided by the cooperative effort of four major professional services. They are:

The medical service which attempts further reduction of the physical disability and the achievement and maintenance of optimum physical adequacy and health. Its staff is made up of attending physicians and consultants in the various medical specialties, nurses, physical and occupational therapists and makers and fitters of prostheses.

The vocational rehabilitation service is responsible for the achievement of the optimum economic adequacy of the disabled person through special vocational counseling and special academic and vocational instruction. The service arranges for placement in employment through its own efforts and that of the New York State Employment Service.

Industrial Rehabilitation is responsible for the achievement of the optimum economic adequacy of those who will benefit from remunerative on-the-job factory training in our sheltered workshop. It is staffed by a director, experienced in industrial managements, a factory supervisor and shop foreman.

Social Adjustment Service is charged with the responsibility of the achievement and maintenance of the optimum mental health, social adequacy and recreational and spiritual life of the disabled and mutual adjustment of the disabled person and his family to the physical disability. It is staffed by a psychiatrist, psychologists, social case workers and speech therapist.

Cooperative planning between personnel of these services is both informal and formal. Formal planning is accomplished at the weekly meeting of the Professional Staff Case Committee which integrates the rehabilitation plans of each of the several services into an overall, individual plan for the

trainee. Its responsibility continues until Institute service is concluded. Professional management at any phase of the rehabilitation process depends upon the paramount need of the disabled person during that phase. Wherever such management may rest at any given time the other services provide supportive services according to the need of the disabled person.

Our case load is at present 451, of whom 148 are medical outpatients primarily receiving physical rehabilitation, 65 are in vocational training, 5 in pre-vocational courses, 57 in the Sheltered Workshop, 106 in other assignments — 81 open in Social Adjustment Service only, 15 prospective trainees and 75 in the process of registration.

Case Work as Offered to Entire Case Load

Our intake process is the responsibility of the Social Adjustment Service and involves the preliminary gathering of reports from other agencies by the Registrar, which is then presented to the Admissions Committee. The Admissions Committee either accepts the client for study or rejects as inappropriate for our services. A four-week period of study comprising careful social, psychological and medical study culminates in a three-week vocational aptitude study in the Guidance Test Class. These findings are presented to the Professional Staff Case Committee which either rejects the client as unfit for our services or accepts him and works out a rehabilitation program.

The role of the case worker in this rather complex setting is two fold. That of coordinating the program for the trainee, interpreting it to him and individualizing him for other staff. She is the first professional staff member he meets and case work treatment begins with social study as she helps him to understand his request for vocational training and his hesitations in accepting it. She interprets herself as the staff member available for individual discussion of feelings regarding successes and difficulties encountered in the course of training.

Her social study includes a detailed history of family background, education, work history, recreational activity and living conditions. While obtaining this information she explores carefully for attitudes so that her impression may include "what sort of person" is seeking our services, how he may be expected to be able to utilize them, how much encumbered he is with fears and wishes for dependence and what strengths he brings with him.

The case worker also seeks to determine what strengths exist within the family and community and how they can be mobilized to assist the client. This is supplemented by the psychological study which routinely during this phase utilizes the Wechsler-Bellevue. If there is a question of a severe psychiatric problem the client is immediately presented to the psychiatrist; if not, consultation is usually delayed until the client is seen in our setting for a period.

The case worker is usually quite active during the fourth week period of study, which is an anxious one for the client. She recognizes his anxiety as a normal feeling during study, and helps him understand the various experiences involved for him in this process. By the end of the period he usually sees her as a person who will help him meet the demands placed upon him, who has time for and interest in his feelings about his situation and the people around him.

She has had an opportunity to decide whether supportive interpretive assistance will suffice for him or if he will require more intensive help from the Social Adjustment Service. If his needs place him in the former group she will remain available to him, seeing him regularly, but possibly at widely spaced intervals, and increasing her activity if he encounters any difficulty and especially as he nears placement in employment. She usually remains available to him for a month or more after placement so that she can help him deal with the emotional problems of leaving the semi-protected area of training for fuller independence. During this entire process she is frequently dealing with the fears normal to the assumption of personal independence after the often necessarily long period of dependence on family and hospitals and a sometimes distressingly long period of vegetative existence. This is natural because of the loss of initiative which may result and the usual loss of self-confidence attendant on disability and the amount of assistance required by the disabled individual earlier in the period. We realize that it is no easy thing to take the steps between often complete personal, social and economic dependence to more or less complete dependence on self, to regain the lost initiative and self-confidence.

The case worker's support is supplemented by use of the recreation program staffed by a recreation worker and a group of organized volunteers. In the case of the brain injured the psychologist offers therapy designed to train or retrain as the case may be the lost or undeveloped brain function.

The psychiatrist is available for consultation to confirm diagnostic thinking or advise as to the treatment plan.

Case Worker's Role in Psychiatric Team

The case worker's second function is seen when she functions more directly as part of the mental hygiene team. This occurs when a supervisory, supportive role will not suffice to assist the client to utilize his experience of vocational rehabilitation training and it is apparent that he needs more intensive help. This decision is reached after presentation of the case to the psychiatrist, who as leader of the mental hygiene team then defines the role to be carried by each member of the team. The case worker has accumulated considerable information with which to amplify her original study, the psychologist offers data on individual disposition and impairment of function through the use of a battery of clinical tests. This data is put together and a treatment plan evolved. At the Institute for the Crippled and Disabled treatment can be offered in various combinations. Our usual pattern is that the psychologist will be utilized in therapies designed to restore or train lost or undeveloped mental function of the brain damaged, the case worker when treatment is to be offered to assist with emotional problems. When a client is encountering difficulties in both of these areas both the psychologist and the case worker may be employed. Their activities are directed by the psychiatrist through frequent consultation. This pattern may be varied by the psychiatrist offering psychotherapy to the client and the case worker working with family members, although psychiatric time available does not allow this often.

The case worker's major effort in this situation is to assist the client to relate to the reality of his situation and to free and strengthen him so that he can participate in his own rehabilitation. We feel that the emotional factor is often responsible for success or failure in overall rehabilitation planning. The problems encountered include weakness of ego structure due in part to the experience of disability and the family attitudes which arise as a result of it, severely dependent attitudes fostered and supported by physical disability, rebellion against the limitations of disability and difficulty in adapting to real limitations, disturbed attitudes as a result of disturbed family relationships, passivity as a result of deprivation of normal childhood experiences, fears and anxieties in excess of those to be expected in meeting the demands of vocational rehabilitation.

Interpretation with other services is obtained by means of the Staff Case Committee. Other services support case work by frequently upgraded experiences of success where possible. When the emotional problems have been sufficiently dealt with the initiative passes to another service, vocational or industrial rehabilitation, and the case worker becomes supportive to their planning.

Summary: We thus see the psychiatric case worker in our setting as discharging two functions. The first, as she assists the client to utilize the total experience by using her understanding of him and of his situation to free him to act. Her second function is required when this less intensive assistance is inadequate and the client requires mental hygiene service. She then functions as a member of the psychiatric team as treatment is offered.

Vocational Service

FREDERIC G. ELTON
Chief Supervisor, New York State Division of Vocational Rehabilitation, New York City

In introducing this subject of vocational service in a rehabilitation center, may I emphasize the fact that rehabilitation in the last several years, as conceived by public and private agencies, has undergone a complete change. Since we are discussing rehabilitation centers as they came into existence under the impetus of the Baruch Foundation following World War II, it is of interest to note that the service thus introduced and emphasized centered around the very seriously disabled and crippled person. Very little consideration was given to the rehabilitation needs of others. It is also interesting to note, particularly since my topic is the vocational service, that these centers which came into existence on the basis of this Baruch development are for the most part medical in nature. This, despite the introduction at the same time of the term "total rehabilitation." Total rehabilitation includes consideration of the physical, mental, social, and vocational needs of the patient, not disjointedly, but united with a common purpose of maximum accomplishment of each. Emphasis on one, except as the immediate condition of the patient requires it, and the subordination and exclusion of others will

not secure a maximum of all. Can we hope to bring about a normal, contented, cheerful, mental condition in idleness? Can we hope to bring about a satisfactory social adjustment to family, friends, and community in the face of frustration bred by the inability to participate in some form of work activity, doing something? What was the reason for the introduction of Federal and State rehabilitation by legislation? It was to give to the disabled assistance in being fitted to engage in some activity. It was in recognition of the factor of being occupied as being basic to normal mental and social adjustment. It gave purpose to medical treatment. It provided a rallying point for all services, to render fit for some form of occupation.

If then, the vocational service does not receive attention equal to all other services, the yardstick for measuring complete or total rehabilitation does not exist and the possibility of achieving a maximum in any service, physical, mental, or social, is hampered.

The vocational service in consultation with the other services is intent upon setting up an occupational goal. Such occupational goal may be of necessity in a sheltered workshop, or some form of homework. It may be the return of the housewife to her household duties, if only in part. It may be some form of a small local business for self. It may be part-time work under regular employment conditions, or what is most desired, back in regular competitive employment, a fully rehabilitated person. Finally, it may be proved that any kind of occupation is impossible, but this cannot be determined in the rehabilitation center without the existence of a vocational service and thorough exploration and trial.

It is urged, therefore, if the purpose of a center is really total rehabilitation, that the work of the center should be under the supervision and direction of persons with a knowledge of all services, recognizing the importance of each and with the ability to unite all as a team for the benefit of the patient. The staff should be equally balanced in medical work, psychiatry, social adjustment, and vocational accomplishment.

Furthermore, these centers should offer their facilities to other than those deemed as seriously disabled. Since we are urging that total rehabilitation be made possible, through the many services involved, to all patients, it would appear to be the responsibility of every hospital to set up within its own facility this rehabilitation center service. It would appear to be the responsibility of every hospital to see that provision is made for accomplishing the maximum of possibility for each of its patients in each of the services, physical, mental, social, and vocational. A rehabilitation committee should be set up including representatives of all, and cooperation and teamwork established.

There is no reason why hospitals cannot give as equal consideration to physical restoration, to the services of physical medicine or physical therapy, as is done in the post hospital rehabilitation center. Physical medicine is not a new service, but it has received new emphasis as a very necessary service in the total rehabilitation of the disabled person. It is encouraging to see many hospitals introducing this rehabilitation service. It is urged that they give complete thought to all the factors that enter into total rehabilitation. The introduction of a complete physical medicine service, as do the other factors in total rehabilitation, completes the work of the surgeon or the doctor at the time of initial treatment. We know that up and down and across this nation, surgeons have by reconstruction surgery reformed limbs producing work capacity where none existed. Useless and claw-like hands damaged by accident have, by a series of delicate operations, been rendered usable on work. Such intricate and surgically successful operations have been innumerable. We also know, however, that such marvelous surgery, to secure a maximum of usefulness, is dependent upon properly supervised physical, occupational, and work therapy. This should be a part of the treatment starting immediately and continuing over such period of time as is necessary to complete the restoration of function.

What we need and what the rehabilitation center should stand for, whether it be in a post hospital service or a part of the regular hospital treatment, is that all persons and all services contributing to total rehabilitation, physically, mentally, socially, and vocationally, should have a common understanding and the common purpose of job restoration, working as a team. Then the term rehabilitation center becomes a symbol of new horizons toward which all participating from the hospital to the job will pool and direct all their efforts.

World War II not only provided a new concept for rehabilitation, but it spread the interest in rehabilitation more completely throughout the country. By the recognition of the importance of all these services, the words from the original Federal Rehabilitation Act, "to render fit to engage in remu-

nerative occupation" have taken on real significance and meaning. The revisions of the original rehabilitation act of 1920 as included in Public Law 113 of 1943 have provided for all these things as contributing and essential to its vocational purpose and objective. In this connection, it is of interest to note that a publication of 1921, issued by the Federal Board for Vocational Education on the subject of rehabilitation, recognized the primary importance of physical restoration in the rehabilitation service. Following is a quotation taken from that early publication, "Persons who are disabled by stiff or limited joints, fractures or deformities, tendon adhesions, nerve injuries, the loss of function of groups of muscles resulting from infantile paralysis or other causes, will be far better served by being put in the way of physical restoration than by being trained around their disabilities. No argument is needed to prove that to restore the physical condition and capacities of the disabled person is a higher and more efficient type of service than to prepare him for a new occupation without such measures." And now listen to the end of this particular section from which I am quoting, "If the rehabilitation service is to render any assistance at all, its first obligation is to determine the possibility of physical rehabilitation."

There you have quotations from a pamphlet issued in 1921 by the agency administering the Rehabilitation Act of 1920. There is no misunderstanding of the emphasis in the statements made as to the importance of physical improvement as a first service in any attempt at rendering fit for remunerative occupation. This would appear to indicate that those engaged in the work had not failed to appreciate the importance of physical restoration. Thus, we may say that the concept of the necessity of what we find today in the rehabilitation centers, dates back to the year of that first rehabilitation legislation in 1920.

I already pointed out to you the necessity of including full vocational counsel and vocational preparation in the rehabilitation center as a part of total rehabilitation. Let me then quote from this same pamphlet of 1921 on this subject: "One of the first principles in vocational rehabilitation, provided the person had been satisfactorily employed at the time of injury or onset of disease, is that he be returned, if possible, to the same occupation. In most cases, this makes for efficiency, satisfaction, and happiness of the person because of his being returned to employment and employment conditions with which he is familiar." There is the concept of direct, efficient, and speedy rehabilitation upon which the need for reconstruction as the first service is built. It exists today and it is why the vocational service should receive more attention in the rehabilitation centers, whether they be a part of a post hospital center, or when that center is a part of a hospital. As a part of these centers, it is an efficient, time saving, service in the return of the patient to occupational participation.

Dr. Kessler stated that there is nothing new in rehabilitation, other than a better understanding of the necessary services and teamwork. Dr. Greene, a psychiatric consultant of the American Rehabilitation Committee, has explained to you a service established in New York City in 1924. This service was set up by a private agency at the request of the local state rehabilitation service to meet the need of a physical reconditioning service which, while recognized, had not been provided for by Federal and State legislation. It was and is a service of reconditioning the patient. It helps the patient to overcome neurotic tendencies, the fear of work, and helps to rebuild his work confidence, tolerance, and happiness. It assists in eliminating unnecessary physical limitations often placed by the patient himself upon his disability. It provides all this through the application of a supervised vocational activity related to the patient's past or future work. It is known as work therapy. It is actual work for the therapeutic benefit of the patient. It has, in recent years, been introduced in England by government readjustment agencies for the disabled. It is a service not limited to the seriously disabled, but is provided to render all those that need it fit for remunerative occupation and to bring about a satisfactory physical, mental, social, and vocational adjustment, when it is possible to do so. It is the service now covered by the Federal Office of Vocational Rehabilitation by the term Personal Adjustment Training.

You have heard Dr. Stoller explain that when preparing a disabled person to go back to work, and that is what all these services are for, that that person should be subjected as early as possible to supervised vocational conditions. Not only should these conditions be as nearly as possible like those which he will meet upon re-entering employment, but the work in which he should be engaged should be related to that work which he is going to do. When this vocational or work therapy service is introduced, therefore, into the rehabilitation centers, it is to provide for

physical restoration and vocational preparation moving forward concurrently. One should support the other, providing the patient with the opportunity of measuring his own improvement as he recovers his work capacity. The patient, as early in the period of medical service as is permissible, should be entered into this vocational service. This vocational service is a laboratory for observation and measurement, not only vocationally, but physically. In selection and adaptation, the patient's personality, work experience, interests, and all emotional aspects of his condition should be carefully considered by the rehabilitation committee. By such a process, the patient may become a part of the team and the teamwork for his recovery.

As has been pointed out in one of the sessions of this Conference, such combination of medical and vocational service is already operating successfully in tuberculosis, mental, and general hospitals. Patients participate in many of the job duties of these hospitals on the basis of medical, psychiatric, and vocational consultation.

There has been introduced into this session three types of rehabilitation centers. One with the major emphasis on medical care and physical medicine, one in which medical service and vocational service are evenly balanced, and the third in which the emphasis is on the vocational service under medical and psychiatric consultation. I am advocating, therefore, that this vocational service, on a practical and realistic basis, should be introduced into the medical period of service, whether it be in a hospital, or a rehabilitation center. Through its vocational value, it has great therapeutic value. All these centers are efficiently fulfilling their purpose within the area in which they operate. The last type of center mentioned, finds its greatest value as the hospital patient becomes an out-patient and immediately following discharge. It continues the vocational service started in the hospital and provides the opportunity for completing the physical, mental, social, and vocational adjustment of the patient to community and work life. I have pointed out to you that if the vocational service is introduced during the medical period and hospitalization, it will not only have curative value medically and psychologically, but will lead to more speedy readjustment of the injured person in some form of occupation. This is to be desired, as it would eliminate much of the idleness, the discouragement, and the job maladjustments that so often follow discharge from hospital and medical care. Furthermore, such vocational service will be a rallying point for all services necessary for total rehabilitation. Finally, and very much to be desired, there will then be provided an uninterrupted service to the disabled from the sick bed to the job.

Panel Discussion

CHARLES L. NEWBERRY, M.D.

Assistant Chief Medical Officer, Office of Vocational Rehabilitation, Washington, D. C.
Senior Surgeon, U. S. Public Health Service

Dr. Charles L. Newberry, of the Federal Security Agency, Office of Vocational Rehabilitation, expressed the hope that rehabilitation workers in the State-Federal program would, in planning rehabilitation center activities, consider themselves and their program as parts of a larger community movement, meeting such needs as those of crippled children, very young children with cerebral palsy, and even the aged, with no vocational future.

This will not only be a more economical way of meeting total community needs, but it will increase the effectiveness of each individual program by having expert personnel and equipment available which any one program would use only occasionally.

Dr. Newberry also expressed the hope that occupational therapists would take the lead in a move to make occupational therapy more vocationally significant, working closely toward this end with vocational training officers and others united in the completion of the client's vocational rehabilitation plan.

The other Panel Members were Corbett Reedy, Director, Virginia Division of Vocational Rehabilitation, and Director, Woodrow Wilson Rehabilitation Center, Fishersville, Virginia; Joseph Hunt, Assistant Director, Office of Vocational Rehabilitation, Washington, D. C.

Session on

THE REHABILITATION OF THE MENTALLY AND EMOTIONALLY ILL

Wednesday, October 25, 1950 • Grand Ballroom, 2:00 P.M.

Presiding

LUTHER E. WOODWARD, PH.D.

Coordinator of Community Mental Health Services, Mental Health Commission, New York State Department of Mental Hygiene

The Session Committee

CHAIRMAN, PRESIDING OFFICER

DANIEL M. BLAIN, M.D., *Medical Director, American Psychiatric Association, Washington, D. C.* • JOHN A. P. MILLET, M.D., *Chief Psychiatrist, American Rehabilitation Committee, Inc.; Associate Attending Psycho-Analyst, Columbia University, New York City* • VICTOR H. VOGEL, M.D., *Medical Officer in Charge, Federal Security Agency, Public Health Service, Lexington, Kentucky* • LEONARD W. ROCKOWER, *Supervisor, Psychiatric Service, New York State Division of Vocational Rehabilitation, New York City*

Introduction

DR. LUTHER E. WOODWARD

I am pleased to chair a meeting devoted to a discussion of the rehabilitation of the mentally and emotionally ill. As many of you know, I participated with Dr. Rennie and Dr. Burling in a study of rehabilitation of hospitalized patients.* In the course of this study my convictions about the practicability of rehabilitation efforts with the mentally ill was gradually strengthened. I trust the size of this audience is proof of widespread interest in work with the mentally and emotionally ill.

I shall not burden you with the details of our study of hospitalized but a few outstanding effects may serve as an introduction of this afternoon's discussion. We found that 15% of all patients leaving mental hospitals definitely needed vocational rehabilitation. This percentage is over and above another approximately 15% who are receiving some form of assistance in community adjustments through the social service staffs of the hospitals. The need for rehabilitation is especially acute among young schizophrenics who broke down during their education or at any rate before they had become well established vocationally. On a nationwide basis, we estimated that at least 9,000 patients coming out of psychiatric hospitals need vocationally rehabilitation services. Only 5% of this need was being met by the official state agencies in 1948, the last year for which figures were available. We shall learn later today from Dr. Rennie and Miss Bozeman some indications of need among patients treated in out-patient clinics.

The rehabilitation of the mentally and emotionally ill is obviously a complicated task and involves cooperation of hospital staffs, rehabilitation staffs, welfare departments and social service organizations, job placement agencies, and industry itself. This program has been planned with a view to spelling out some of the major problems and offers suggestions as to how the rehabilitation of the mentally and emotionally ill can be carried forward more effectively. We hope to have a full hour for comments and questions from all of you who comprise the audience.

Rehabilitation Problems and Services In the Hospital

DUNCAN WHITEHEAD, M.D.
Assistant Director, Brooklyn State Hospital, Brooklyn, New York

For many years the general public held a conception of the mental hospital as a custodial institution, a place to which people who had become insane were sent so that they might be removed from society. During the past 100 years there has been a growing emphasis upon treatment for these individuals in these hospitals. In approaching the subject of rehabilitation problems in a mental hospital it seems to me that we are actu-

* "Vocational Rehabilitation of Psychiatric Patients" — Thomas A. C. Rennie, M. D., Temple Burling, M.D., and Luther E. Woodward, Ph.D. 1950. Commonwealth Fund. 152 pp. 75¢

ally discussing the psychiatric treatment of patients in the hospital. The aim of mental hospitals today is to restore as many patients as possible to the community as constructive individuals. As an aside, I may add that we must all recognize that when this aim cannot be accomplished and the individual remains ill, it does become necessary to furnish the individual with custodial care in order to protect him from himself and to protect society from his possible misdeeds. And so the proper starting point for this particular contribution seems to me to be the entrance of the patient into the hospital.

The great majority of our patients do not come to us voluntarily but rather are sent to us because their behavior and activity has been recognized by those in their immediate environment as indicating the presence of a mental illness. It is true that some of our patients do come voluntarily because they recognize within themselves the symptoms of emotional disturbance and desire to be treated for them, but they are in the minority. In this situation, with most of our patients being the involuntary type, it is doubly important that we provide a friendly, helpful atmosphere in which the patient can find acceptance. We must see that they are surrounded by an understanding atmosphere; that the people, and by this I mean every person who comes in contact with them in the hospital, give them the understanding which they so urgently need and which they have probably not been accorded elsewhere. We recognize that mental illness does not just happen. We recognize that it is brought about by external factors or by internal factors or by a combination of both. And, more importantly, we recognize that the external factors are really only important as they affect the individual himself. We recognize also that these people are sick in the true sense of the word. Their resistances have been overcome by a pathological process which they have been unable to combat. This is oft-times made more poignant by the fact that they do not recognize this state of affairs. We contend that it is only when these people are surrounded by understanding personnel from the beginning that they can be brought to a personal understanding of the facts of the situation. In this sense of the word we believe that treatment (or rehabilitation) includes every act, every gesture, every word that is directed toward every patient from every member of the personnel. This is what we mean by a therapeutic atmosphere. We believe such an atmosphere is essential to the successful treatment procedures in a mental hospital.

One of the first concerns is the general physical health of the individual involved. It is only when the body is as healthy as possible that the benefits of treatment can be at their maximum. Every measure possible is taken to diagnose physical conditions and to institute treatments aimed at their alleviation. All the benefits of modern medicine should be brought to bear for the welfare of the individual.

We have, at the present time, in psychiatry and among our treatment procedures, a group of therapies which can be best described by the term "somatic" or bodily. These include particularly the various types of shock therapy. It is true that we have no detailed understanding of how or why the shock therapies work. Many theories have been promulgated but none of these has as yet been proven. We do know, however, that they are effective and constructively so. Somehow these therapies appear to break up the unhealthy recent behavior and thought patterns and to render the patient more accessible to external influences, thus opening the field for the development of new patterns of behavior and thought. It is believed that these therapies have their greatest effect when they are combined with psychotherapy.

Psychotherapy itself, and in the exact meaning of the term, is concerned with a personal relationship between the patient and his doctor. In this relationship many features of living are explored with particular emphasis on emotional reactions and feelings. The place of emotions in behavior and thinking, especially where they have led into injurious paths, is explored, discussed in detail, and constructive steps to make essential changes are taken.

Group psychotherapy has been introduced in recent years as an attempt to increase the benefits to the patient and to allow the individual physicians to reach a larger number of patients. In this group setting there is an exploration of the emotional factors of living by the entire group. The patient is allowed to see himself as others see him. He learns first hand that he is not the only one so afflicted by emotional problems and he is provided with a group socializing experience on a deep, emotional level which is seldom provided for him elsewhere.

A discussion of psychotherapy would not be complete without stressing again the importance of the relationships between the

patients and the nurses, the patients and the attendants (or as they have come to be known, the "psychiatric aides") and between the patients and the members of the auxiliary departments with whom they come in contact. It is not enough that the personal relationship with the physician be a constructive one. All such personal relationships must be constructive. The part played by the nurse and the psychiatric aide, the occupational aide and others in like categories, cannot be stressed sufficiently. It is toward this end that extensive training programs have been undertaken in various hospitals to increase the understanding and treatment efficiency of the entire staff. Many of these programs are particularly aimed at the psychiatric aide, the importance of whose position has, in the past, been grossly underestimated.

Another feature of the therapeutic efforts of the hospital is along the lines of occupational and industrial therapies. Occupational therapy has several goals. It is aimed at developing on the part of the patients an interest outside of themselves and their problems. It attempts to channel their emotions along the lines of constructive effort. Great use has been made of the hand-crafts in this regard since the finished product represents something which has been completely fashioned by the individual involved and in the achievement of which he can take considerable personal pride. Oft-times in the production of these articles a patient can give vent to an expression of the emotions which have been pent up within him and can learn for the first time, maybe, that emotions can be channeled in constructive ways.

In the program of industrial therapy the patient takes his place in the various occupations which are essential for the proper running of a hospital. Sometimes these may be along the line of his own vocation. Most frequently, however, they are not. Even so, the patient gains by the constant application of effort in a team-endeavor to promote the welfare of the entire group. Thus he is introduced to the altruistic spirit without which true emotional maturity cannot be attained.

Another form of treatment involves the use of recreational therapy. Here the attempt is to develop interests along the lines of socializing, of games, of sports either individually or in groups. Attempts are also made to interest the patient in various forms of art, such as music, its appreciation, its production and its enjoyment. The fundamental attempt here is once more to demonstrate to the patient that they themselves can make positive contributions to the pleasures of themselves, of others and of the group. Also that in so doing they can channel emotional material into an effort which is constructive. This program introduces much of the give-and-take spirit which is necessary for a properly balanced life in our society.

The treatment of the patient is also carried out in many indirect ways. For example, by interviews with relatives, members of the personnel of the hospital are able to explain some of the aspects of the patient's illness to close relatives, particularly those with whom the patient has and, we hope, will again, live. Also they are able to give some sort of a delineation of the general principles which should be used in handling their interpersonal relationships with the individual patient involved. It is sometimes amazing to see the entire attitude of a family toward a patient change under such a program, and certainly any favorable change will be of undoubted value to the patient later, after his discharge from the hospital. Another objective is gained by this procedure. The understanding of the illness does not stop with the individuals to whom it is explained. They, in turn, explain it to others and in this way some of the principles of mental hygiene can be scattered widely throughout the community. The method is slow but its effect is profound. Many are the people who first come to the realization of the true elements of mental illness in having them explained by a person who has experienced mental illness in a close friend or relative. This becomes, therefore, an important part in the program for the prevention of mental illness.

So far I have attempted to present in outline form the rehabilitation procedures which are used by the personnel of a mental hospital for the benefit of the patients within that hospital. We believe our results are favorable. Under this regime, somewhat over 50 percent of the patients leave the hospital within one year of admission, and somewhat over 30 percent are considered to be socially restored to constructive living. However, not all the work of a mental hospital is performed within the walls of that hospital. It is the custom in most places for the patient to leave the hospital on some sort of a trial period. In New York State this period is given the official name of "convalescent status" and extends for a period of one year. During this year the patient and the patient's family remain in close contact with the hos-

pital and are eligible for its assistance. The greater share of this work is performed by the social service department. A psychiatric social worker meets each family prior to the placement of the patient on convalescent status and discusses the home situation to which the patient is to return. The initial contact is, therefore, made before the patient leaves the hospital and any questions which may be present in the minds of the relatives can be explored and an attempt made to answer them. In this way a considerable amount of reassurance is provided to the family and the groundwork for the reception of the newly returned patient is laid. During the year the social worker visits the home of the patient at least every two months and more frequently if it is deemed advisable. The patient and the relatives are asked to attend a convalescent clinic, at which time they are interviewed by a psychiatrist. On both of these occasions questions can be answered, pertinent subjects brought up for discussion, and every possible assistance toward social adjustment given both to the patients and to their relatives. In this manner the interpretation of the principles of mental hygiene is carried to the patient and to the family. Oft-times this acts to improve the inter-family harmony and to contribute to better health on the part of all members of that family. It is usually of concrete assistance to the patient in readjusting to the external environment in which he finds himself.

During this convalescent year the social worker not only uses her own abilities and the facilities of the hospital as much as possible, but she also uses any available agency and facility in the community. Notable among these would be the Department of Welfare, the New York State Employment Service, Child Care Agencies and, more recently, the Division of Vocational Rehabilitation, to mention only a few. Formerly she used industrial placement agencies, some of which have been extremely cooperative. In using any of these agencies the social worker, in conjunction with the psychiatrist, carefully screens the patients so that the other agency will not be asked to deal with cases where the result would be negligible and amount to a comparative waste of time of the particular agency involved. It is only when the staff of the hospital believes that some constructive benefit can be obtained that such referrals are made.

At the end of the year on convalescent status the patient is discharged from the hospital, provided, of course, the adjustment has been satisfactory. For hospital purposes this person is no longer considered a patient of the hospital and is no longer eligible for the hospital services. We do not withhold our services from discharged patients when there is good reason for us to provide them, but in the interests of the patients in the hospital and on convalescent status, these endeavors cannot be very great.

These then are the methods used by the hospital personnel in its attempt to promote the rehabilitation of the individual patient, both within the hospital walls and during the patient's readjustment to his external and social environment.

This presentation would not be complete without going one step further and making an attempt to interpret our patients to the personnel of the community agencies who might be requested to assist them. In order to give the greatest amount of help to these patients, the personnel of the agency dealing with them needs to have some understanding of the personality patterns and quirks to which they are subjected. It is true mental patients will run the gamut of personality patterns and will present an enormous variety of eccentricities and quirks. We can, however, for all practical purposes, confine our attention to the numerically largest group, which is composed of those patients with that mental illness known as schizophrenia. It has been estimated elsewhere* that it will make up over 80 per cent of the patients referred for service. It is here granted that the symptomatology and personality patterns presented even in the single mental illness with schizophrenia will be varied. However, in the majority of these people there is an underlying pattern of personality traits which they have in common.

One of these traits is sensitivity. These people have a high degree of shyness and are easily embarrassed, particularly in their dealings with strangers. They have a seriousness of outlook and a reserved attitude. These are actually defenses which they have developed against situations which provoked anxiety within them. They appear to be cold but they have underneath an intense desire to be friendly. They tend to be idealistic and they seem to get lost in attempting to compromise between the ideals and the real values of a situation. They are extremely slow to make friends and most of them

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* "Vocational Rehabilitation of Psychiatric Patients" — The Commonwealth Fund, New York.

have been hurt so often, because of their sensitivity, that they are disinclined to place their trust in early interpersonal relationships. They can be described as rigid and at the same time uncertain. They are inclined to test the depth and value of the friendships that are offered to them. Through these personality characteristics they can become extremely trying to the individual who is attempting to become friendly and to help them, especially when that person's time is limited.

These people need support. They cannot at once accept upon themselves the whole burden of living. They need a friendly, warm reassurance frequently. While they cannot accept the whole burden of living, they are at the same time apt to resent being ordered and to have doubts about the wisdom of advice which seems too easily given. To steer between these two extremities, the counselor must gently and carefully lead them into a satisfactory interpersonal relationship. They will attempt to throw the burden of the decision on the person giving aid and at the same time will resent his accepting the burden completely. The counselor is therefore obliged to be partially accepting but also to lead the client gradually and gently to accept the responsibility himself.

As these words were being written, an article from the pen of Dr. Barbara Betz, Associate Professor of Psychiatry at Johns Hopkins University School of Medicine, was called to my attention. In it, Dr. Betz is concerned with the dynamics of the psychotherapy of schizophrenia. She is talking from the point-of-view of the relationship between the psychiatrist and the individual patient. However, certain words of hers are also applicable in the relationship of any individual who is called upon to deal with such a patient or former patient. She states that one of the prerequisites for success is that the physician should exemplify in all his dealings with the patient the following triad of human qualities; kindness, strength and fair play. She states that these qualities need to be exemplified by attitudes and actions as well as by words. She is saying that the patient in his contacts with the physicians needs to encounter a kind person, a strong person and a fair person.

By the word "kindness" she states that she does not mean merely a mildness or an absence of harshness but that she means instead the positive qualities of respect, sincerity and concern for the individual's problems. She states that these patients value kindness highly but do not expect to experience it personally and that to them the kind person is almost a legendary figure. She adds that when true kindness is apparent in the attitude of the counselor, the patients are deeply moved and may even show it externally.

In her use of the term "strength" she cautions against regarding it in the sense of domination. She states that these people like a show of strength but dislike to be dominated. By domination she means any coercion, the adoption of a superior attitude or arbitrary attempts to control or to influence. By "strength" Dr. Betz means the ability to engage in the strenuous business of counselling, exploring and examining, of being at the same time serious yet good-natured about it, of being able to take a verbal beating without being hurt and at the same time to show a continued willingness to carry on the relationship. It is this show of strength of character as opposed to wishy-washiness, exploitability or yielding too easily that the patient respects. They see in themselves all too frequently this latter pattern of reaction and their fantasy life is very often concerned with their own desire to be strong in character. Thus they can identify and relate to individuals who demonstrate the characteristics which they desire for themselves. By "fair play" she means the giving and getting of an even break, receiving credit for what one deserves, keeping one's word, having mutual respect for the individuality of others and having a respect for individual and social justice. It is realized that this concept probably cannot be fulfilled 100 percent in actual experience but it is also known that these qualities are generally accepted as a basic premise by which people relate to each other. The person with schizophrenic tendencies does not have much faith in this premise as an actuality and does not expect to receive fair play in their dealings with others. They are deeply concerned about the lack of fair play in their own personal world and in the world in general. This is in itself evidence that they place a high evaluation upon fair play. When they see it in others they again are given an opportunity to identify and to develop a positive feeling for that person. It is this positive feeling which enables them to come out of their shell, so to speak, and to take an active part in the counselling procedure.

A repetition of these principles of dealing with clients or patients seems rather unnecessary because if we think back on them we find that they only follow certain precepts advocated for years in society regarding

the proper behavior of one person to another. They would seem, therefore, to be fundamental in our code of behavior. However, we meet so many instances today where fundamental precepts known throughout the years are cast aside in favor of some allegedly scientific and allegedly dynamic rule, that it behooves us occasionally to re-examine these precepts. Actually it is probable that we could boil down all these words into a statement something like the "Golden Rule," or state that we should treat our patients and clients as human beings with proper respect for the dignity of man. On the other hand, it is also important that those rules of action by which we live and work shall have some foundation in recorded fact and that we should know the underlying purpose of the rule. It is for this reason that scientific reiteration of the rules is of value and at times necessary.

It can easily be deduced from these considerations that the treatment in counselling procedures involve the exercise of all the tact and diplomacy which the individual possesses. More importantly, it involves the submergence of his own feelings, particularly impatience and anger. These reactions are the ones the client has met so many times before and these reactions are the ones that have led to his being rejected by many people. When he sees or senses them in us he anticipates another rejection, withdraws into himself once more and any attempt we may have made is thereby rendered futile.

With the exercise of this knowledge and self-restraint on the part of the worker, these people can frequently be led into a satisfactory situation in which they can settle into a happy adjustment. To my way of thinking there is no greater satisfaction than the comment of a person who says with feeling, "You are the first person who has ever really put up with me, given me your time and thought, tried to understand me and was patient even when I needled you. I don't know how I can ever thank you enough."

In the Community

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Rehabilitation of the mentally and emotionally ill is a complex process, probably the most difficult one in medicine and one which calls upon many skills and services. The crux of the process lies, of course, in psychotherapy, either for individuals or for groups who are fortunate enough to be able to afford private psychiatric treatment or to have available a mental hygiene clinic or out-patient service where psychiatric treatment can be found. Because the factors involved in emotional ill health are multiple and include family, community, occupational, and religious dynamics, as well as intra-personal conflicts derived from complexes, repressions, and defenses having their original sources in the childhood life, it has become axiomatic in modern psychiatric treatment to rely heavily upon the skills of other disciplines. In every community there are many agencies and resources which have much to contribute to the process of psychiatric rehabilitation. One thinks of the psychiatrically oriented general practitioner, the psychodynamically oriented minister, the school teacher, the industrial physician and personnel officer, the clinical psychologist, the vocational counselor, and the social worker and nurse, regardless of the agency or health unit in which she works.

The psychiatrist must draw upon these skills to supplement his knowledge of the emotional growth and development of people, the nature of neurosis and other psychopathological disturbances and his knowledge of the laws of emotional behavior which determine the individual's inner adjustment, as well as his relationships with all other people in his life. There is not time to describe the process of psychiatric treatment nor to indicate more fully the many professional resources upon which the psychiatrist draws.

Unlike the patient in a psychiatric hospital where the environment and emotional climate is more easy of definition, the ambulatory psychiatric patient in the community presents innumerable problems of infinite shading, impossible of easy categorization. Since most persons in society today have emotional problems of greater or lesser complexity, clients are found at all levels of community health operation; as students in school, clients of social agencies, as patients of health departments or practicing physicians, etc. But in the majority of your communities, the scientific identification of the fact of emotional illness and of the degree and exact nature of that illness will continue for some time to be the primary problem in rehabilitation for emotionally ill people who have not been hospitalized.

Even when therapy is available, emotional illness is difficult of treatment. The process is a long one. The time involved in the resolution of neurosis is extensive, and the disability may be completely, partially, or very little modified by even the best therapeutic methods. The specific task of vocational rehabilitation, which is the aspect upon which we particularly wish to focus this afternoon, must therefore be undertaken usually at some point during psychotherapy and can rarely wait until the completion of psychiatric treatment. Thus viewed as part of total psychiatric management, this should be done in close collaboration with the psychiatrist or, if undertaken independently, should have the advantage whenever possible of psychiatric consultation in order to clarify the nature of the emotional disability, its severity, its possibility of modifiability, and the extent to which emotional factors specifically create or color the vocational problem.

We wish to report our study of the vocational rehabilitation needs of a group of patients under psychiatric treatment in a number of mental hygiene clinics. As far away as this may seem to those of you who count the distance from psychiatric clinics in scores of miles, the results of our inquiries may have some applicability as the resources for finding, defining and treating emotional illness bring themselves nearer to you.

When the study of post-psychotic patients to which Dr. Whitehead and Dr. Woodward have referred was completed, the National Committee for Mental Hygiene, now a part of the National Association for Mental Health, realized that the same kind of information was needed about patients of mental hygiene clinics. It was known that some clinics used vocational agencies and that vocational agencies sometimes referred clients to clinics. But we had no organized information to indicate what proportion of clinic patients presented vocational problems, to what degree vocational services were an effective adjunct to psychotherapy in helping patients meet those problems, or what methods of cooperative work gave patients the maximum benefit of both psychotherapy and vocational service. With a grant from the New York State Department of Mental Hygiene, we undertook to find out something about these questions.

For the study we selected nearly 450 cases from the current case loads in five New York City clinics and one clinic in a smaller community in Michigan. We excluded from our group patients who were post-psychotic because we felt this area had been adequately covered by the previous study. We excluded also patients for whom clinic service consisted only of determination of the need for hospitalization because we were most interested in the rehabilitation process within the community. We also excluded housewives because we felt they presented a completely different vocational need which we could not adequately explore in the time permitted for our study.

We shall not here attempt to describe in detail characteristics of our group of patients, partly because of time and partly because our patients have resisted classification and have insisted on remaining clear-cut, identifiable individuals. It is important to know, however, that about 80% of the total group were between the ages of 15 and 45 years, and that a range of diagnoses was represented. The majority of patients were considered to have psychoneurosis, but there was a sizable number with psychosomatic illnesses, with character neurosis, with latent or clear-cut psychosis and a few mental defectives and a few psychopathic personalities. It is characteristic of the group diagnostically that with the exception of about half a dozen, they were considered to be capable of making enough of an adjustment to society and their communities so that hospitalization would not be necessary.

The study is still in progress. The follow-up on many patients whose needs could not be fully evaluated at the time of our survey and those who were receiving both psychotherapy and vocational service is not yet complete. We can, therefore, give you only tentative findings.

We were, from the beginning, struck by the fact that the six mental hygiene clinics were veritable hot-beds of vocational problems. Using here only the figures from four of the New York clinics, including 335 cases, we discovered that approximately 80% of the patients presented vocational problems to the psychiatrist at some time during treatment. Few patients came to the clinics for help only with work adjustment. But it was clear enough that vocational adjustment was usually either complicated by or complicating of the emotional and personality problems for which treatment was sought. Patients brought to the clinics their questions and concerns about their unemployment, their lack of skills, lack of job satisfactions and job status, their difficulties in interpersonal relationships on jobs, their confusions about the kind of vocation

to choose, or the kind of a job to look for, their worries about promotional opportunities and their convictions that they had greater or lesser abilities than were required on present jobs.

We presumed that job duties suited to the individual's highest skills would be a large factor in job adjustment. Although we still feel that it must be important, the presented difficulties were most frequently in such areas as job security, interpersonal relations, feeling about supervision or authority, or ability to hold a job regardless of what it was. There were a few interesting examples of patients who expressed complete satisfaction with their work although it was at a level considerably below previously demonstrated skill and capacity.

Up to this point in our study, we have not been able to find essential differences in the vocational adjustments of patients in different diagnostic groups. Most strikingly, for instance, although some ambulatory schizophrenic and latent schizophrenic patients had acute difficulty around work, a few others in these groups presented no vocational problems, having found, by chance or by plan, work situations which gave the support and satisfaction they needed.

In considering rehabilitation in its broadest sense, we must, of course, be interested in those patients who did not present vocational problems as well as those who did, but we shall confine ourselves here to discussion of the group of 265 patients whose rehabilitation needs included the need for improved vocational adjustment.

Nearly 30% of those patients who presented vocational problems were known to have received or to be receiving vocational service from someone other than the psychiatrist at the time of our survey and it was estimated that an additional 15% should at least be considered for vocational service. For this latter group the need and feasibility of additional service could not be determined until further progress had been made in therapy.

It should be noted that, when we speak of vocational service, we are referring to service given by any one of a variety of agencies. The pattern of resources differs from community to community and we were more concerned with the fact and the efficacy of vocational service than with any one community's pattern of providing that service. Over a dozen sources of vocational service are represented in addition to clinic social service departments which gave the only vocational service involved in some instances.

When vocational service had been given we tried to discover whether or not it had helped. This was no easy task. When a patient is affected, as he is always affected, by all the things happening to him twenty-four hours a day every day as well as by his interviews at a clinic or agency, it's difficult — frequently impossible — to define the degree to which any one influence has made a difference. A patient's father dies, he runs into a man on the street, an old friend returns to town, a war starts in Korea; many things beyond our control can make our best service appear poor or our worst service appear good. Another difficulty in evaluating service lies in the fact that the results good and bad do not necessarily show up at once. With these difficulties in mind we proceeded to evaluate the results of service.

In approximately 80% of the cases where vocational service had been completed, we felt that some positive value had resulted. Usually the value was in apparent resolution of the presented vocational problem. In other cases, however, a vocational counselor could not have honestly closed the case as rehabilitated when his service was completed. Sometimes the need for a job — any job — had been accomplished with placement service, relieving reality pressures which would otherwise have stood in the way of the progressive movement of therapy. In some of these situations vocational rehabilitation was far from complete because real vocational direction had yet to be achieved, but could not be achieved until emotional problems were nearer resolution. We also considered it to be a value if vocational service helped a psychiatrist toward quicker knowledge that a patient would never work again.

In some instances in which we could find no value resulting from vocational service, we felt, and the psychiatrist agreed with us, that a large reason lay in the limitations of psychotherapy, in poorly planned or timed referrals, or in a diagnostic impression which later proved incorrect. Some failures seemed to result because the goals of therapy and of vocational service were never synchronized. Other failures were perhaps the inevitable results of trial and error which will remain a necessary method of service until our psychiatric and vocational knowledge of human behavior has reached a higher level and has become better integrated.

Without going into details of age groupings, it is of interest to note that although

vocational problems occur at any age, vocational service is apparently more likely to be an important part of rehabilitation for people under 30. This, of course, is not surprising because it was among these patients that we usually found lack of job skills, lack of labor market or occupational information, lack of vocational direction and lack of work experience.

With this bare outline of findings, we shall present to you some of the conclusions and questions which we have been formulating to ourselves.

The material substantiates the well known fact that the presentation of vocational problems does not in and of itself indicate the need for vocational services. Two-thirds of the patients whose vocational problems had been resolved at the time of our survey had had the benefit of no service other than psychotherapy. In most of these situations, it appears that psychotherapy enabled the patient to re-apply job skills which he already had, to pursue a vocational direction which was not diagnostically contraindicated or to use his own resources for returning to work. In a few instances, patients receiving only psychotherapy effected for themselves an almost startling vocational redirection, having apparently achieved enough understanding of themselves and their own resources for vocational outlets to be able to make major constructive job changes. For instance, one man was a minor legal worker on civil service at the time of clinic admission and became a successful restaurant owner and operator. The therapist probably cannot take credit for the fact that the man had a brother who had financial resources and that a business opportunity presented itself to the patient. But the therapist can take credit for the fact that the patient's anxiety neurosis was sufficiently resolved at that point so that he was able to give up civil service security and take advantage of the opportunity. Since emotional problems manifest themselves frequently in vocational maladjustment it is reassuring that psychotherapy has proved itself to be effective in dealing with the total problem. We shall leave it to other speakers on this program to discuss the problem of how a vocational counselor who has the most limited psychiatric resources available for service to his clients, tells the difference between a vocational problem which is a vocational problem and a vocational problem which is an emotional problem, if indeed there is any such separation.

One of the problems we have seen in rehabilitation of the patients with emotional illnesses in the community is the difficult necessity of making a psychological readjustment from the concept of a static physical impairment to a concept of a constantly changing modifiable emotional condition. In the rehabilitation of all handicapped persons we have said for years that all services should be closely coordinated. However, we have been able to make a distinction between medical restoration and other processes in rehabilitation. Once the best of medical skill has established the fact that a man is blind, all additional services will not make him not blind. Although vocational services are of utmost importance in helping the orthopedically handicapped to live and function within the limitations of their handicaps, no vocational service will restore the leg of an amputee. Vocational agencies have had considerable experience in trying to obtain clear-cut medical opinion as to whether or not tuberculous or cardiac conditions are static or will progress. That experience tends to indicate that whether or not the condition will progress depends greatly upon the patient's vocational and social situation. Even more markedly, we have seen that the course of emotional and mental problems will be considerably influenced by factors in the patient's vocational and social situation and cannot be predicted without consideration of those factors. We have discovered that this means not simply that various services must be coordinated with each other, but that they must all be part and parcel of the same thing, psychiatric restoration. Hopefully, the challenge for all service personnel is not primarily to help the patient live within the limits of an emotional handicap, but to help him become no longer handicapped.

It is true, of course, that this goal cannot be achieved with all patients. Clinic personnel accept the fact that some patients, within the limits of presently available treatment and their own capacity to use that treatment, have a maximum level of adjusment to themselves and to society which implies a static continuing emotional handicap. But, here too, whether or not the maximum level of adjustment is achieved and maintained will depend in many cases on psychotherapy and the capacity of other needed services to become a part of psychotherapy.

A scattering of patients in our group seem to negate the statement that all services

must be an integrated whole. Some patients have needed no greater and not essentially different vocational service than we hope to provide for any run-of-the-mill member of our community when he encounters specific reality vocational problems. For instance, one patient found that his chosen technical field was in truth a grossly overcrowded one and he could not find a job. He used counseling service directly and constructively to substantiate his impression that he had hand skills and a mechanical mind and to learn how his experience and training could be applied in a related field which was equally satisfying to him and which offered job opportunities. For the conduct of vocational service in this situation it seemed less important that the clinical diagnosis was "hysterical character disorder with depressive potentialities" than that the patient was facing a very real anxiety-producing situation which would have worried any one of us.

The difficulty lies in knowing when a presented vocational problem can be handled directly and when direct handling would be meaningless or disastrous because the very presentation of the problem is a mask for deeper troubles. Another patient asked a vocational agency for help to determine whether or not he had potentialities in the field of selling, which he had been in for some time. Testing, interviewing, and history failed to indicate any reason why the patient should not remain in the field. The counselor gave the reassurance which seemed indicated and did not discover that the man was a patient of a mental hygiene clinic. The patient's question about his vocational choice had been stimulated in therapy as he began to gain insight about his escape from his fundamental problems of relationships with people by using the old saw that "a salesman has to be able to get along with people." Insight is not always comfortable. The patient sought and got comfort from the counselor. The process of therapy was delayed in an instance where it could possibly have been considerably enhanced by counseling. Such conflicting directions of service will probably be inescapable until the intake procedures of both clinics and vocational agencies routinely include means of discovering what other community resources for service the patient or client has used.

That conflict can exist between the direction of psychiatric service and the direction of vocational service simply illustrates the fact that emotional illness is a state of conflict within the individual and various elements of the conflict must be known before service is certain to be meaningful. Vocational counselors have long known that vocational adjustment is dependent upon the individual's understanding of his own abilities, interests, personality traits and other characteristics in relation to the world in which he lives. But it is not easy to accept the fact that interests may be neurotic expressions and that the development of potential abilities may be a way of avoiding progress toward emotional maturity and health.

Yet the successes in vocational service to mental hygiene patients indicate to us that these problems are not insuperable. Vocational service personnel need to get used to psychiatrists and psychiatrists need to get used to vocational service personnel and we all need the benefit of more experience and study to discover the really optimum use and timing of vocational encouragement, activity and counsel in treating emotional illnesses.

The field of rehabilitation of clinic patients is not one for the vocational counselor who needs the security which comes from the fact of a client's static, easily definable disability or for the counselor who cannot accept on occasion the limited responsibility of giving a specific prescribed service instead of the full gamut of vocational evaluation. Nor is it a field for the psychiatrist who is not secure enough in his own relationships with patients to be willing to trust professional competence in other personnel.

For service personnel who are more interested in people than in the sanctity of their own professions and more eager to help people than they are to prove that they have helped people, the problems involved in serving psychiatric patients well will be more than compensated for by the opportunities for enormously meaningful, if not always dramatic, service.

Essential Procedures in Vocational Adjustment

Psychiatric Consultation for Vocational Purposes

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The word "psychiatrist" today is familiar to anyone who reads a newspaper or goes

to the movies. In other words it has become familiar to every citizen who follows the news or can afford the luxury of regular attendance in his nearest movie palace. It is, however, a word which too often is associated with one conception, that of the specialist whose sole or chief function is to detect and treat mental illness. Let us take a moment then to define what a psychiatrist is. The word psychiatrist is derived from two Greek words, Psyche (mind, soul, spirit) and Iatros (healer). If one adopts only the first meaning of Psyche — the mind — one is limited to the definition of a psychiatrist as "healer of the mind." Fortunately, however, the Greeks understood that there is no 38th parallel that divides mind from soul, and soul from spirit, and have left us a word within whose meanings lie one which can remove most of the sting from the meaning of the term psychiatrist. The healer of the spirit is a much more respected citizen in most people's minds than the healer of the mind. People can have low spirits but they can not have sick minds, and it is in the task of understanding, interpreting, and strengthening the human spirit — for which psychiatry has its own esoteric definition — that modern psychiatry plays its most significant role. There is small need today to question the existence of forces and circumstances which challenge the human spirit in ways which, both in direction and extent, have never before been known. The advances in modern science, however, are not solely in the field of the physical or so-called basic sciences. The discoveries of modern dynamic psychology have opened avenues to a better understanding of the human organism as a total entity, single and indivisible, a living creative being whose activities are the resultant of physical and emotional forces operating in combination under the partial direction of the will, if I may be permitted to use this word in its most widely accepted sense. Dynamic psychology, however, has also made clear the importance of motivations, of urges to action, of which the individual may not be conscious, so that his "will" to act in his own best interest and in line with the demands of his intelligence may be only partly effective. The modern, well-trained psychiatrist, therefore, must be thoroughly conversant with the nature, significance, and sources of these less conscious motivations if he is to understand his patient and to interpret and clarify for him the difficulties which he finds in pursuing his aims and achieving those satisfactions to which he feels entitled.

In the field of rehabilitation this knowledge is a primary requirement. The term "rehabilitate" implies the concept that the individual was once able to function at a level more acceptable to himself and to society than is at present the case and that the aim of treatment is to restore him to that status or to one that is equivalent or superior — to put him back on the map, so to speak. If the disability is such that this goal is not conceivable, then rehabilitation becomes a relative concept, and the goal of treatment has to be defined as "optimum," or "Maximum possible under the circumstances."

Everyone who has become the victim of a disability, be it due to illness, to accident, or to emotional causes, becomes of necessity a more self-centered individual. His machinery of adjustment has been thrown out of its previous co-ordination. The machine has to limp into the garage for repairs or maybe even be towed there. Its owner, the individual himself, may have an idea, accurate or inaccurate, as to the source of the trouble, but, if he is a wise man, he will find the best mechanics he can to do the job for him. He may get impatient, feel that the garage is giving him the brush-off, doesn't know its business, doesn't realize how badly he needs that car for his business. In any case he has to wait till he finds out what has to be done and make plans for himself during the period of necessary repairs. He may even get so impatient that he takes the car out of the garage and decides to try another, or even to patch it up himself and drive it until it breaks down. The one difference between the owner in this allegory and the patient who concerns us is that the latter can not sell his car — that is to say his own human identity, and replace it with a new one. No amount of money could do that for him.

So here we find ourselves faced with the responsibility for providing him with a suitable garage for repairs and a competent set of specialists in human mechanisms to provide him with the necessary services and to convince him that his old car can be put back on the road in a safe condition. In this task the psychiatrist might be compared to the electrical specialist. It is his task to know, as every physician must know, the operations and functions of every part of the human machine, bodily as well as psychic, and above all to be able to evaluate the

points at which the system of communications and co-ordinated functioning has broken down.

As a physician he carries a three-fold responsibility. He has to heal his patient, to take preventive measures for his future health, and to inquire both into the causes of his disability, and into the conditions which might prevent his optimum and continued recovery. In other words, he has to take full cognizance of all the factors that stand in the way of achieving a rebuilding of the patient's ability to become an independent, self-supporting, self-respecting, and contented human being, capable of effective functioning in the social medium in which he lives, moves, and has his being.

His first task, then, becomes an assessment of the problem; a co-ordinated, well rounded diagnosis of the trouble, an evaluation of the dysfunction that has resulted, a prognostic estimate of the degree of recoverability present, and a plan of treatment which offers the best hope of achieving an optimum restoration of functioning capacity.

His diagnosis must be based on the history of onset, the opinion of the other medical specialists as to the nature and degree of the disability, the past treatment received, and the present goals of therapy. In addition to these data he must bring his own particular branch of knowledge to bear on the problem, by means of which he estimates the significance to the patient of the disability, his attitude towards himself and his future, the degree to which his spiritual temperature has been lowered. He must get a complete history of his personal development, and of his attitudes toward himself, his family, his former associates and superiors, his aspirations, frustrations, and successes. In order to check his diagnosis he may feel it desirable to have a complete psychological examination, which may reveal hidden tendencies in the personality which would only become manifest on a longer acquaintance. If the disability is of such a character that there is no likelihood of his being able to carry on his former occupation, or if he is averse to the idea of resuming it, he will certainly need the advice of a psychologist who is expert in determining latent aptitudes in other fields. The existence of such added resources creates a situation comparable to what happens in a well-organized medical practice or in a general hospital. Laboratory services, X-rays, special consultants are usually necessary if a thorough-going diagnosis is to be established. The more complete the diagnosis the more certain it is that a suitable plan of treatment can be mapped out.

Once the diagnosis has been completed and the significance of the disability to the patient has been evaluated, plans have to be made for applying the proper therapeutic measures. In another session of this conference a complete description has been given of the various types of Rehabilitation Centers now in operation. Each type has its own particular history and its own operational techniques. Until very recently the task of planning for "the whole man" instead of for his amputated foot or his collapsed right lung was handled by occupational experts who had to depend on their own intuitions and their common sense for evaluating the patient's attitudes, both towards his own treatment and towards others with whom he was thrown in contact while it was being carried out. Often exceptional skill has been developed by people having no specially designed type of training for this delicate job. The combination of warm sympathy, objectivity of outlook, and resourcefulness in planning which characterizes such workers in the vineyard is not the monopoly of any group of experts, no matter what their specialized training may have been. It is a combination of qualities, nonethe-less, which is particularly desirable in any person who deals directly with the disabled. The psychiatrist is no exception to this rule. It can be said indeed that these are on the list of indispensable qualities for psychiatrists who wish to enter the field of rehabilitation.

At the present time our knowledge of the indivisible nature of man requires that in planning our programs of therapy full consideration be given to the psychological factors in each case, as well as to the nature and extent of the disability and to the specific prescription of activities advised by the physician in charge and available at the Rehabilitation Center. It is at this point that the psychiatrist should make his entrance on the stage and add his particular insights and advice to the picture. He should be on the planning team, though not in charge of its execution. By the time that he makes his entrance he should have at his disposal the recent history, together with a social history in which the patient's background and socio-economic status are fully set forth. With the exception of those rehabilitation programs which are conducted in in-patient settings the patient must necessarily return each day to his own home, where the

conditions of living and the relationships within the group may be so satisfactory as to insure the most sympathetic and supportive attitudes, or so unfavorable as to create a special emotional climate of a sort which might well impede or delay the patient's recovery. Gains made during the day in a Rehabilitation Center may be undone in the evening by a depressing occasion at home or a quarrel with a nagging wife.

Part of the psychiatrist's job in getting together his ten cents' worth of wisdom will be to learn enough of the patient's earlier developmental life to determine the basic qualities of his personality, both in the credit and debit columns, since it is the predominance of certain emotional characteristics over others, and the controls previously exercised over these forces, which will give the best indication of the attitudes which he will be likely to display, and important leads as to things to attempt and things to avoid in the planning of the program of therapy.

Ideally speaking, therefore, every program of therapy should be based on the total needs of the individual, and requires therefore a team of experts working together with a common end in view, the restoration of maximum possible adaptive efficiency — a definition which implies removal or repair of the disability itself, restoration of self-respect and self-confidence, ability to give and to get satisfaction in his social relationships, both intimate and casual, efficiency and enjoyment in his work program, and renewed interest in appropriate recreations and hobbies. The reports of the instructors and recreational aides on progress might be compared to the nurses' reports on a hospital chart. Since they have the best chance to observe progress and attitudes their comments should prove to be the most reliable indicators of whether the patient is making progress or not. No program of therapy, however skilfully planned, carries an absolute guaranty of success, and the greatest possible flexibility is desirable, in order that the prescription can be changed on short notice or some necessary modification introduced. Since the instructors and aides are the real trouble-shooters, it is highly desirable that they be given an original briefing on the psychological aspects of various disabilities, on the meaning of attitudes which delay progress, and on the best methods of overcoming such difficulties. If adequate plans are made for staff meetings these operatives will have the opportunity of checking their own techniques in individual cases, and the supervisory and medical personnel will themselves be building up criteria of success or failure. In such staff meetings every member of the planning team should be present, and be prepared to answer pertinent questions or to suggest changes in the prescription of activities. One of the most important aspects of any rehabilitation program is the relationships that exist between the patient and his therapists, and the patient and the institution. The morale factor cannot be over-estimated. The attitude and spirit of the administrator will pervade the whole institution in so far as the carrying out of required procedures is concerned; the relationship between the executive and professional staff will determine both the success and satisfactions attendant on co-ordinated teamwork; the approach of the therapist to his task is the last and most vital link in the chain of positive values which tend to offset anxiety, encourage effort, and build up faith in recovery. Such considerations clearly point to the need for psychiatric insights as part of the technical equipment in any rehabilitation set-up. Any prudent psychiatrist, however, will want to become acquainted with the contributions to planning that have been made by other experts before injecting his own personal views too strongly into the picture. As a scientist it is his duty to study the picture, collect evidence, posit some theories, and check on their validity through observing the results of their application. A large body of data has of course been collected over the years, indicating results achieved by various types of rehabilitation programs. A careful review of such statistics, if they are available, would provide some background against which the operation of this teamwork approach could be judged. If the policy of "total push"— that is to say, maximum co-ordination of professional and technical effort — is to justify itself, these statistics should be improved. Needless to say, the savings in human happiness and manpower efficiency, which even a slight improvement in the recovery index would mean, is worth twice the cost to the community of bringing it about. There is no counting the influence of a successfully rehabilitated individual on the community which has made his recovery possible. By the same token the defeatism of those who have not had the opportunity to find proper help spreads like a subtle poison among his family and friends and breeds distrust of

community agencies and of those very experts who have the ability and the desire to extend the assistance required.

The role of the psychiatrist in a rehabilitation program does not end with participation in diagnosis and therapy. He also can contribute his mite to the prognostic estimate. Over-enthusiasm may lead to unrealistic expectations, and so to increased and avoidable disappointments. The goals of therapy — that is to say the farthest frontiers of improvement in functioning which can be visualized — need to be carefully scrutinized, so that the maximum possible realistic expectations can be given to the patient and any false hopes be gradually dispelled and be replaced by the acceptance of objectives more nearly within reach. To achieve new successes, no matter how small, holds the best promise of progress toward more significant improvement. No greater disservice can be done to a disabled person than to set him goals which he will probably never reach. The estimation of his ability to reach goals which seem feasible should be based not only on his physical status or his technical skills but should include an evaluation of his attitudes and of the patterns of his personality which were in evidence before the disability occurred. Psychiatric insights can make an important contribution to the formation of a soundly based prognosis, without which programs of therapy would in many cases be doomed to failure, and the last condition of the sufferer would be worse than the first.

Finally, through his disciplined knowledge of the emotional currents that pervade the structure of all groups, from the family up to ever widening and less intimate associations, he can help to assess the climate of the family or other group among which the patient must spend a significant part of every day, and on whom he must depend for physical aid, for material and moral support, and for the satisfactions of human exchange. He can evaluate the data which the social worker collects on this social setting, and can guide the worker in her attempts to set the most favorable stage for his social adjustment. One of my colleagues, Dr. Henry B. Richardson, chose as the title for a book: "Patients Have Families." The importance of this fact cannot be over-estimated in planning any rehabilitation program. The problems that arise from this basic and obvious fact are legion. Some families are in despair because of the disability of the chief wage earner or best loved parent — others feel that nobody is doing the right thing and that they are in some way being discriminated against. Others, in turn, may express their frustrations in outbursts of resentment against the patient himself. In other words, it is only too frequent in occurrence that the sudden disaster calls for some channel through which the anxieties and resentments of those associated with the patient have to be expressed. The patient then may find himself between the devil and the deep blue sea, struggling on the one hand to get ahead with his rehabilitation, and on the other to keep his family pacified.

To sum up, then, the psychiatrist in the field of rehabilitation needs, besides familiarity with his own science, to have the type of personality that makes him a good worker on a team of experts whose concerted efforts are directed toward the building up of a well rounded program. He needs to have had experience with community agencies so that he will know where to look for auxiliary resources in the field of cultural hobbies or other recreation. He needs to have worked with psychologists, social workers, and with persons skilled in testing vocational aptitudes. Above all, he needs to be a well trained physician, capable of understanding the medical or surgical opinion as to the type of retraining that is within the capacity of the patient to experience. His insights into the reactions of patients to their disabilities and to their future possibilities may be of considerable value in expediting the process of recovery.

Social Work for Vocational and Community Adjustment

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I am going to assume that we more or less accept the premise that social work is an essential procedure in vocational adjustment of the mentally and emotionally ill. For this type of disability the rehabilitation worker is generally ready to accept the need for collaboration with the social worker.

However, I do not intend this paper to be an exposition of the usual functions of a social worker. Those who wish to go into that subject have access to a variety of books and articles which discuss social work philosophy, functions, and services more expertly and thoroughly than I can do.

A description of social work procedures under one heading and the rehabilitation

worker's services under another would give us a very neat chart or outline. It would seem clear and well organized. I do not believe that would contribute much to our understanding of the whole process, however, for we are talking about a process and not a series of services. Of course, if social work was quite unfamiliar to most of you, I should give a simple description of social work. I am sure that is not necessary. Most of you have had numerous dealings with considerable numbers, and varieties, of social workers. Of course, such contacts do not insure understanding of the social work profession. I believe that requires a more disciplined effort to acquire information and perspective.

I would like to mention briefly an effort that has been made by one of our district offices to understand social work. Last year that office spontaneously set up a "winter project" entitled "Understanding the Social Worker." They selected a list of twelve books which seemed to appear most frequently in social workers' professional libraries. These books were reported upon and discussed at bi-weekly staff meetings over a period of several months.

The final session of the project was planned as an evaluation and summation of these findings. I anticipated that at that time the social work profession would be thoroughly dissected and its shortcomings mercilessly exposed. In the interest of scientific thoroughness, I offered to attend the session as a "still warm cadaver." The offer was accepted with gruesome alacrity. However, when I arrived, it seemed we had gotten our schedule mixed up as they were discussing Carl Rogers' *Counselling and Psychotherapy*. (They knew that was not social work.) The thought has since occurred to me that perhaps the district staff, with the fine sensitivity of born social workers, concluded that my ego structure would not withstand such an onslaught as might proceed from their final evaluation. However, they later put out a six-page report of their study. It is quite worth reading. It is evident that that group of rehabilitation workers is acquainted with the fundamentals of social work and the philosophy which guides social workers. I am sure their working relationship with the social work profession will be cooperative and productive, though still not uncritical.

I would like to heartily recommend an equivalent process for any rehabilitation workers who expect to function closely and effectively with social workers. Frankly, I think this applies to all rehabilitation workers, for I firmly believe that the greatest productivity of both professions requires their continual collaboration.

It is equally important that social workers who have considerable dealings with rehabilitation should familiarize themselves with rehabilitation, the services it can offer and the circumscribed nature of its goal. The rehabilitation worker's primary concern is in the vocational area. He can justify his concern with other areas of the client's life if they impinge actually or potentially upon his vocational adjustment. The concept of total rehabilitation implies concern with the client's adjustment in every aspect of his life. Rehabilitation, being one of the youngest professions, would have difficulty in referring its social work colleagues to a list of books and pamphlets from which they can acquire an adequate orientation to rehabilitation. Rehabilitation workers need to individually take time and put forth special effort to graphically describe their services and policies to the social workers they encounter.

I would like to present social work here as a part of the rehabilitation process, as an assimilated and heartily welcomed part of the process. I am unable to discuss this with meaning, however, unless I also consider the rehabilitation worker's attitude and function. The rehabilitation of the mentally and emotionally ill requires such a close integration of the skills of these two professions that it would seem to violate reality to even attempt to discuss one of them separately. I will try not to intrude upon the area that Mr. Rockower will be discussing in a few minutes.

I think this is a good place to describe three attitudes which I have observed among vocational rehabilitation workers with reference to serving the mentally and emotionally ill:

> Attitude number one: "I would rather not have anything to do with 'screwball' cases." These workers show marked aversion to almost every client whose emotional problems intrude on the smooth processing of a case. The reasons for this are compounded of fear of the unknown and various emotional responses that threaten the worker's own security. I observed the ultimate in this attitude at a time when travel funds were somewhat short and each worker planned his itineraries with miserly care. This particular worker was willing to contribute a portion of his travel allot-

ment to the social worker assigned the psychiatric caseload if she would take on the psychiatric cases in his territory also.

A second attitude is that of the occasional counselor who has a strong morbid interest in psychiatric problems. This can be serious in its consequence for clients. I have known such individuals to inquisition some clients on details of their personal life, particularly in areas that were a problem to them. They often hand out "half-baked" interpretations and also undertake a reckless experimentation in their plans.

Third, there is the professional attitude of the better counselor who admits the limits of his knowledge and skill, and seeks the assistance of people better qualified than he in those areas.

A good counselor is definitely not a "jack of all trades," though I know there are times when almost any of them would give one an argument on that point. The vocational rehabilitation counselor is increasingly able to claim a genuine professional discipline and equipment of which he may be proud and which he should guard jealously in its exercise. Like the social worker, his most important tool is the confidence and trust his client comes to feel for him. This trust he can guard most effectively by confining his operations to his sphere of greatest competence. I anticipate that Mr. Rockower will discuss this subject in detail.

Where will we find the social workers who are to make such an essential contribution to the rehabilitation process. The first resource, for those clients who have been mentally ill, is the social worker who is attached to the hospital staff. This worker's function varies from hospital to hospital. She may meet the patient upon admission and follow him throughout his hospital course and the convalescent period after he leaves the hospital. At the other extreme she may only encounter the patient as he is about to leave the hospital and in some cases her caseloads are so large that she has few contacts during the convalescent period, perhaps none unless initiated by the patient.

The usual function of the hospital social worker as it concerns us here is that of making preparations for the patient to leave the hospital. This includes planning with him on the necessary details of his existence outside the hospital. Ideally, she has provided information and education to the family regarding the patient's illness, progress, and has helped them understand what he will need from them to aid his adjustment. Should the patient not have a suitable home to go to, she may arrange a family care plan or even a work home.

Probably the most vital social work service is active assistance to the former patient in adjusting to all aspects of his life outside the hospital. Those who have had close contact with convalescent patients know that many seemingly small problems can upset the person and make his adjustment more difficult. The first few weeks after going on convalescent status are often the most crucial. That is when frequent contacts with the social worker for reassurance, guidance, and encouragement may make the difference between success and failure.

Let me emphasize that to many patients the hospital is really a refuge, a place of safety. Many patients look upon it as a haven. This fact tremendously increases the effectiveness of the social worker. She is an extension of the hospital. Thus, it strengthens the protective and supportive role she plays.

Now let us look at how this social work service fits into the vocational adjustment picture. We have found that where a social service department is permitted to play a fully responsible role on the hospital staff that a social worker is the most satisfactory source of referral of potential clients. Social work in the hospital does not have an exclusively therapeutic concern (using therapeutic in a restrictive sense of treatment of a specific illness). It is the social work job to look at the patient's life outside the hospital, too. The vocational area may receive only incidental attention, but under suitable guidance and encouragement from the rehabilitation worker, it readily becomes one of the more important items of concern.

The timing of the referral is another service to be expected from the social worker. Referral prior to release from the hospital would be rather routine. However, considerable number of patients who would later need rehabilitation services may not be ready for vocational planning at the time they are released. The vocationally oriented social worker can then make the referral at the appropriate time.

Understanding and appreciation of each other's professional skills will be most required when the client enters an active vocational program. It would seem simple to say that the social worker would concentrate

in the areas of personal and family adjustment and that the rehabilitation worker would carry responsibility in the vocational area. Sometimes it is not so simple. Then I believe the close relationship between social worker and rehabilitation worker will provide the best criteria of how to serve the client effectively.

We would agree that adjustment to the family is an area for social work. But what if the family thinks the client should have a different kind of job, that he should do white collar work, or take a high paid and high pressure factory job? Or perhaps they want him to take his former job with a friend of the family, who really represents a punitive father figure to him. Don't you think the rehabilitation worker might help considerably in that situation? His knowledge of work processes and the demands made by various jobs would be most effective in helping a family to a realistic viewpoint of what would suit the client.

We would likewise agree that it would be the rehabilitation worker's chief responsibility to help the client in choosing an appropriate vocational goal. But some clients may be clinging to an impossible vocational goal through a strong emotional need of which he may be totally unconscious. Modification of this attitude may require intensive interviewing of a type that is the social worker's highest skill. So there may be times that social work will be active in the vocational area.

The second resource for social work service is from the family and other social agencies in the communities. Clients who have been mentally ill and are being served by the hospital social worker would not, of course, be independently referred to other social work services. That is a move which should be initiated by the hospital social worker. There will be situations in which she will want the help of other specialized social agencies. It is possible that the rehabilitation worker may come upon a problem area and report it to the hospital social worker. Then it is a matter of planning between them for the best procedure in meeting the situation.

Service to the psychiatrically handicapped who are not on convalescent status from a hospital will test the rehabilitation worker's versatility and knowledge of community resources. The referral may come from any source in the community. Some clients may be referred for a physical rather than an emotional disability. In all cases, the rehabilitation worker will need to have a psychiatric diagnosis and consultation to guide him. In addition, if he is to do an effective job, he will need to know social work in his community. Rehabilitation workers are not equipped to deal with many problems that lie outside the vocational area but markedly interfere with vocational adjustment. Even if he were trained for such service, it would be inefficient for him to attempt to perform it as long as there were other agencies specializing in such services.

The next question is how can the rehabilitation worker best orient himself to the social work resources in his community. How is he to learn what each agency can do and be able to choose which agency might be most suitable for his client's needs? In a small community of 100,000 or less this may not be a very big undertaking. But in large metropolitan centers the complexity and variety of agencies that seem to offer quite similar services may be most discouraging.

The major divisions of social work activity that the rehabilitation worker will want to know are those of Welfare and the categorical assistance programs, family agencies, both sectarian and non-sectarian, the various recreation and leisure time agencies, the agencies providing child care and child guidance services, and the numerous health agencies.

If you were setting out to explore a strange country, you would consider yourself most fortunate if you were being guided by a native who could speak your language. There is no question but that social workers indulge in professional jargon that does form a barrier to easy communication. However, in the Council of Social Agencies you will generally find someone whose responsibility as an interpreter of social work should make them a good guide to the community's agencies. However, after this initial orientation, the rehabilitation worker can best go directly to the agency in which he is interested. Agency personnel are glad to explain their policies. I suggest that this discussion of function not be kept on a theoretical level. The rehabilitation worker who can bring up several cases for discussion will find that he thereby gets a much more concrete picture of what social work services his client might receive from that particular agency. Also, orientation to agency function is a two-way process. Rehabilitation policies and

goals can be described during the same conference, both for the sake of the clients that rehabilitation may refer and also with the possibility that some referrals to rehabilitation might result.

I have not wanted to make it seem that using social work services is a simple process. It takes intelligent effort on the part of the rehabilitation worker and social worker. However, neither do I want it to seem so complicated or "fancy" that rehabilitation workers would feel that they should bypass the whole business. I certainly do not believe the rehabilitation worker can do the same things a social worker can do. The rehabilitation worker does have some skills and techniques which approximate those used in social work. However, that does not make him a social worker, and social work is not a function of the rehabilitation worker.

There are possibly two exceptions to that general rule. The most important and, unfortunately, the most frequent is the situation where social work resources are not available to the rehabilitation client. There are large areas where vocational rehabilitation functions, but where social work is most conspicuous by its absence or complete inadequacy in the fact of the potential demands upon it. Necessity then forces the rehabilitation worker to perform many functions which, in better serviced communities, would routinely be handled by other agencies. I have read descriptions of psychiatric rehabilitation projects in which the rehabilitation worker attempted to make extensive social plans and arrangements. These were obviously functions which it is usually assumed will be performed by social workers attached to the mental hospital. But there are plenty of hospitals in this country that have none or totally inadequate extramural facilities. Then, the rehabilitation worker has to do what social work he can if he is to serve his client.

The second exception is when the rehabilitation worker is a social worker. That is a rather unique and special situation which I would like to discuss briefly. There is quite a number of social workers used as consultants and advisors on vocational rehabilitation staffs. However, I want to talk about the worker who is directly serving the client. We have had considerable experience with this in Michigan. The workers have usually been assigned caseloads of psychiatrically handicapped people, though they have also served large numbers of those whose primary disability was physical in nature.

When I think of social workers as rehabilitation workers, I am reminded of the old maid who objected to her neighbor's rooster crowing loudly every morning. Her complaint was that every morning the bird would sit on the fence in front of her bedroom window and shout at the top of his voice, "Any old doodle do." In rehabilitation any old social worker will not do. There are some special qualities that are required. I have known social workers who could not accept the rehabilitation agency function and were, therefore, neither comfortable nor effective on the job. Also, I think the professional worker, first through the selective process of vocational choice, and second by her training, has emphasized some qualities which may hinder the performance of some rehabilitation worker functions.

I think that a professionally competent social worker who has certain additional personal qualities will make a rehabilitation worker to be proud of. I know that I have not thought through these qualities sufficiently. However, I think of the first characteristic as a type of aggressiveness, one that is disciplined so that it permits a client to make his own choices and yet enables the worker to get things done. A rehabilitation worker's job requires that he take more initiative than does the usual social work job. The second characteristic is a capacity for ingenuity, a free-wheeling ingenuity that thinks up ideas that are not in the book. Perhaps this is a capacity for having brainstorms and then the ability to admit these ideas to cool, practical scrutiny. The third quality is a desire to learn new things. The social worker, as well as anyone else entering the rehabilitation field, has a lot to learn. The social worker will bring essential and important skills to the rehabilitation job. In the process of becoming a rehabilitation worker other equally important skills will be learned.

It seems to me that this is one of the strengths of rehabilitation. It can use and integrate so many skills that it has a constant source of vitality and incentive to progress. Each of us, no matter what our background, has the chance of growing with rehabilitation. Let the measure of our stature be that we gradually increase our own power to render a skilled and unique service and that we correspondingly respect and call upon the services offered by kindred professions.

Vocational Evaluation and Services for Job Adjustment

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1. *The Concept of Rehabilitation — A New Focus:*

More than five years have elapsed since rehabilitation services for job adjustment were first made available to psychiatric patients by the Division of Vocational Rehabilitation. From out of the crucible of this experience there has grown a body of tested knowledge, agency services and refined counselor skills which now constitute a professional vocational discipline. This time interval has also witnessed corresponding changes within the psychiatric treatment facilities such as public and private mental hospitals treating acute mental illness and the out-patient mental hygiene clinics serving ambulatory patients. There has been a growing away of the limited treatment goal of just rendering the patient asymptomatic with a consequent request to the social service arm to "get the man a job." The newer concept of rehabilitation has provided the stimulant for the hospital team of psychiatrist, psychologist, occupational therapist and social worker to study the patient's total behavior with the end in view of resolving psychosocial problems of family and personal relationships as well as social and vocational adjustment. The goals of patient re-socialization and protection of family unity become the target in focus. The concept of "convalescent status" assures the patient of continued psychiatric and social service support immediately following the patient's release as he re-establishes his roots once more in the community. The out-patient mental hygiene clinics which coordinate psychiatric treatment with vocational treatment provided by the rehabilitation agency have similarly developed more realism and sounder purpose in effecting community-vocational adjustment for its patients. By means of case conferences, review of case materials and continuing liaison, provided by psychiatric and vocational treatment coordination, the patient moves forward toward the end-goal of rehabilitation — his realization of a most useful and satisfying social and vocational life.

The vocational rehabilitation agency has similarly modified its procedures in the same time interval in order to provide the most constructive aid it possibly can to its psychiatric clients. It was first believed that by setting up a hierarchy of services, the vocational needs of its clientele would automatically be resolved. In other words, a nostrum would provide for the vocational ills of the client. This mechanistic concept embodied in the phrase "human engineering" in and of itself has proven to be unworkable. It failed to consider the necessary arts and skills of the rehabilitation counselor in knowing how and when to make constructive use of rehabilitation services. His ability to secure sound case movement varies directly with his personal stability, empathy for his client, psychiatric orientation and knowledge of case-work skills. Not only does the counselor need to be versed in the several disciplines relating to his work but he needs as well to relate himself adequately to the client, the psychiatrist and the employer. Rehabilitation services, therefore, are as effective not in and of themselves but as the counselor artfully uses them.

Experience and time have demonstrated that the vocational agency cannot satisfactorily meet its objectives single-handed, but must coordinate its efforts within the constellation of organized community agency activities. This truism has grown out of the patient's multiple needs calling for specialized treatment for which no single agency holds the complete answer.

The rehabilitation agency further evidences a need to promote research and experimentation to secure objective data in order to evaluate its effectiveness and to clarify gaps in information such as "emotional capacity to perform work; criteria of work tolerance; and the emotional demands of the job climate. The counselor must also feel that his agency allocates to him a reasonable and workable caseload so that he may competently serve the client with due regard to over-all budgetary requirements.

Within this framework then can we consider the role of the counselor and his use of agency's services in implementing a coordinated psychiatric - vocational rehabilitation program.

2. *Formulating the Work Goal:*

Once the patient has been helped by the psychiatrist to understand the nature of his illness, he will be likely to begin a process of self-orientation. It is here that he begins to feel the need of voicing his plan and of securing vocational assistance and information.

The counselor is peculiarly well-suited to helping the patient in the process of choosing an occupation, prepare for, enter upon and progress in it. A wealth of information at his disposal enables the counselor to reconstruct a global picture of the client's physical condition, psychiatric status, skills, mentality, aptitudes and interests. It then becomes possible to structure a picture of individual work capacity — of strengths and weaknesses. When related to the demands of a particular job in which the patient can optimumly function, he will have been helped to establish his particular work goal. Necessarily the psychiatrist is asked to evaluate the patient's chosen endeavor and only with his sanction will the vocational plan be implemented.

3. *Rehabilitation Agency Service:*

At the disposal of the psychiatric patient are the vocational agency's services to aid him in accomplishing his work goal. These services briefly stated are:

1. Vocational guidance and counseling, including aptitude testing, so that with psychiatric approval a suitable job objective is formulated.
2. Physical and mental restoration such as corrective surgery, artificial appliances as well as psychiatric treatment for those who can use short-term intensive therapy.
3. Vocational training geared to the patient's needs and including (a preliminary work conditioning in a sheltered setting, (b) training in the use of appliances and prostheses, (c) school vocational training, and (d) on-the-job training. Training tools and supplies are provided on a financial needs basis.
4. Job placement in accordance with the client's own interest, psychiatric approval and vocational appraisal.
5. Small business counseling toward helping the patient to establish his own business and providing him with necessary equipment.
6. Occupational tools, licenses and equipment.
7. Follow-up of job placement and the further resolution of any adjustment deemed necessary.
8. Financial assistance while in service, if needed.

In addition to these direct services, the psychiatrist and social worker of the psychiatric agency are available and can be used if necessary for the ventilation of tensions and assistance in problems pertaining to family, finances, or social relationships.

4. *The Dynamics of Process in Counselor-Client Relationship:*

A. *Understanding the Client's Needs:*

The securing of movement in the rehabilitation process basically hinges upon the counselor-client relationship and what each individually brings to that relationship. Little or nothing is available in the present literature regarding relationship dynamics as applied to vocational treatment. The present report it is hoped will serve as a basis for further objective study in this area, so that findings can be considered as factual rather than intuitive.

As heretofore stated, the counselor has synthesized a global picture of the client from the wealth of psychiatric, personal, social, familial, aptitudinal and educational data made available to him. From this data and interviews with the client, the counselor must not only match individual capacities to the demands of a job, but must also understand personality and behavior as it relates to work. To disregard the latter will mean an invitation to failure or the giving of services without regard to purpose and need. The counselor must quickly learn the answers to these questions:—What is this person like? How attentive is he to reality situations? How does he solve his problems? What responsibilities can he assume? How much self-directing ability does he possess? On what level is he able to plan? What are his strengths and weaknesses? In what work situations does he succeed or fail and why? As the counselor-client relationship grows, further insight becomes richer, too, and the counselor is able to evaluate how adequately the client uses him and his agency's services. It is inevitable that the psychiatric service counselor will need to see his client many more times than is true in working with the physically handicapped, before plans are developed and tested. Therefore, planning must be flexible and it is to be expected that no single formula of services will necessarily accomplish what is desired for the client.

B. *The Nature of the Client-Centered Relationship:*

The counselor endeavors to assist the client along the lines that will lead to the attainment of his personally selected goals. Every effort is made to encourage such selection and the counselor must avoid even the suggestion that he knows best. To do this would be to take away the client's right to determine for himself what his goals are.

Actually, it is questionable, in all honesty, for the counselor to impose his will on the client and expect a successful outcome. Nondirective counseling elements are inevitably part of the relationship in order to give support and encouragement for self-expression and to counteract tendencies to regress, shun reality, and to remain completely dependent.

The counselor above all must accept the client where he is and as he is without judging him in any way. As interviews progress, the counselor must decide whether or not rehabilitation services will meet the client's needs. It may well be that some other agency can best help the client at a particular time:

> Joan, aged 22, on convalescent status from a mental hospital, had only worked two weeks since graduating from commercial high school four years earlier. She was impelled to make up for lost time and impatiently rejected any form of service other than immediate job placement. In view of her drive, qualifications for and interest in clerical work, she was helped to secure three jobs, all of which were lost in turn. Her first job ended when she was dismissed for being late every day; her second job ended because she could not tolerate her supervisor's criticism of her fellow-employees' work though her own was satisfactory. She just did not like her third job, and quit. A case conference with her psychiatrist and social worker yielded the information that Joan was rejected by her mother in favor of another sibling. Joan, therefore, wanted only to be her mother's little girl — dependent and loved. In this situation, vocational service would need to be deferred until such time as Joan and her mother successfully respond to casework and psychiatric treatment provided by cooperating agencies.

Directive counseling is employed discretely and whenever required, since the counselor would want to share his vocational knowledge with the client.

> Mary, a bright and animated person age 24, was completely at a loss and discouraged in expressing her goals. In spite of having been a product of a loveless and financially deprived home-life, she nevertheless retained many personality strengths which she minimized. The counselor explained that in his experience other girls with similar problems and goals had achieved what they sought and then invited her to appraise her own potentialities in this light. The counselor here desired not to create the attitude "if others were successful why not you?" but rather to encourage self-evaluation in the light of her own knowledge. Mary will inevitably want to know information about jobs and working conditions and make use of it in accordance with her own needs.

C. *The Role of Aptitude Tests:*

Very often psychometric tests are desired, as the counselor and client want to know about aptitudes, special abilities, attentiveness and perseveration more or less objectively. The results are of relative value only in indicating approximations rather than measurements to close tolerances and it must be remembered that the test norms are in comparison to the well. Many professional workers and so many clients, as well, are under the impression that aptitude tests can provide a vocational diagnosis and predict job suitability while actually no test or combination of tests are able to do this. The test results need to be integrated within the global picture of the client and considered only in relationship to all other known facts of his behavior and personality. Obviously aptitude tests cannot tell us what the patient *can do* and *will do* to make his own future. This will depend on how well he has been able to make use of the services to which he has been exposed.

> Ellen, age 22, was unable to find employment upon being released from a mental hospital. She was discouraged and depressed because all she could think of was going back to factory work. Actually, she had not been able to persevere in her former factory jobs because of being manipulatively slow. Aptitude tests indicated dull normal intelligence and confirmed her slowness in manipulative work but showed that she was careful and neat. She was warm, friendly and cheerful and desired to help less fortunate people who were maimed or ill. When the counselor spoke of nurse's aide work, she eagerly expressed her desire to learn more about it. She received training at the Rehabilitation Center for the Disabled and was then helped to secure a position in a nursing home. She has been steadily working for two years without exacerbation of her former illness. Thus aptitude tests and help in concretizing her own goals have clarified her vocational direction.

The multiplicity of emotional problems confronting the rehabilitation worker defy description within the scope of this paper. Yet it clearly stands out that only by means of a real appreciation of the total person

can he be helped to successfully use guidance and counseling service.

D. *The Rehabilitation Service Meets the Patient's Need:*

Once the work goal has been established the agency's services are utilized in logical sequence as needed to enable the client to reach his objective. Some brief mention was previously made of work therapy service to condition and acclimate the patient to a work environment and to develop work tolerance in his chosen endeavor. A trained professional staff will measure his growth and evaluate his progress with him. The Counselor frequently calls upon this service of personal adjustment training to develop motivation and interest.

> Harold's mother urgently requested the Counselor to get him to do something for he just sat at home listening to the radio following his release from a hospital for a schizophrenic condition. Although his coming to the Counselor was parent-imposed and not of his own volition, the Counselor needed to know if interest and motivation might be aroused in a work therapy program to enable him to return to stock work which he had formerly done. After one month of slow progress in stock and direct mail activities, Harold showed evidence of beginning to relate himself to other persons and to perform his work with some show of positive feeling. At the end of two more weeks, Harold informed the Counselor that he was "sick and tired of playing" and was going back to his former employment, which he did. The Counselor provided some interpretation to the employer of Harold's needs and how his abilities at this point could best be utilized.

Thus Harold was enabled to sufficiently recover his ability to work after a period of conditioning and motivating to the point that he could re-enter employment. The test laboratory of the Rehabilitation Center fosters encouragement and support for those who also require a try-out before essaying a new endeavor. It can then be determined if aptitude and interest are truly evident and not the result of phantasy or wishful thinking.

Vocational training is an important component of total rehabilitation treatment even in somewhat serious conditions complicated by destructive parental attitudes and long physical illness.

> For five long years John, age 21, had suffered from a colitis condition which brought him close to death. Slowly he responded to psychiatric treatment and care in a convalescent home away from his dominating mother. She constantly emphasized to the Counselor her fear for her son's health and stressed the need to over-limit his sphere of activity. John was but vaguely able to express his hopes and dreams for independent living. He could not experiment or accept any alternatives to habitual activities. During the preceding period of limited activity, he had quite adeptly learned to cut paper silhouettes with shears, which he would later color. It seemed that this would have to serve as a basis for subsequent planning. He accepted the experiment of working in the studio of a silkscreen artist as a stencil cutter for a few hours a day. As the experience took hold, John did ask to stay all day and six months soon came to an end. The trainor immediately placed him elsewhere in this single-phased but dexterous work. John can develop and advance at his own rate within the silkscreen field now that he was successfully employed in its simplest phase. Six months later, John became a "Y" member and a part of a social group of his own age. One year later he telephoned to inquire just where he could learn to become a silkscreen artist. Thus his use of the Counselor and service enabled him to make a transition from dependency and preoccupation with self to mature living and interest in external things.

E. *Where and How Shall the Patient Work?*

The culmination of the rehabilitation process is, in part, satisfactory job adjustment where strengths and interests are accented and with due consideration of weaknesses. How this is achieved in logical sequence may be reconstructed for consideration.

Evidence of the readiness to work is manifested by the completion of preparatory work and psychiatric services qualifying the patient for some pre-selected goal. His personal situation and individual needs will materially affect the timing in treatment. The head of a family, chafing at his dependency on public assistance, will be unable to enjoy a protracted rehabilitation process. He will want to come to grips with job placement as quickly as he can. On the other hand, it would obviously be destructive for the dependent and immature person to put off this step after having received maximum preparatory service.

The self-directing client is able to integrate the aid given him and use the Counselor's resources to locate his own job sooner

or later. The regressed schizophrenic with limited attention to the world of reality will depend largely on the Counselor's direct efforts and resources.

> Old Ben, age 48, as he was called in the mental hospital which had been his home for 10 years, had performed his porter chores effectively there. Only in this protected environment had he been comfortable for there were no others elsewhere for him to depend upon. The Counselor directly placed him as a "live-in" porter in a convalescent home where he could perform similar duties in a sympathetic environment.

The active and alert Counselor has developed a comprehensive knowledge of job information and working conditions, by means of industrial visits. He may supplement his stock of data concerning job openings by calling on his own agency and other rehabilitation agencies. Inevitably the Counselor meets employers who exhibit fear and prejudice toward the psychiatrically problemed. How shall the Counselor resolve this problem? Yet is it not true that if the qualified and able client is properly matched to the job, the working conditions and the employer, there is no question as to their compatibility? Employers do not need to know diagnostic labels, nor should interpretation of emotional balance as related to work be overlooked. The client's problem is defined in terms of what he can do, is able to do and what he should not do. A reluctant employer may be induced to try out the client on an on-the-job training basis at no cost to himself, should he need to be convinced.

The relating of the client to the job is a constant challenge for the imaginative and purposeful Counselor. He is impelled to help the client find the right job. The narcissistic and exhibitionist personality will wither away if it is hidden in some dark factory. It needs expression in selling, service, receptionist or demonstrator kind of activity. The restless simple schizophrenic wants to be moving about as a truck helper or messenger. The recovered schizophrenic youth with a pervading fascination for aircraft turns out to be happy and proud to work for the local airport. The shy, fearful girl, afraid of authority, responds to the warmth and approbation of the kindly supervisor.

The happily employed client reflects the chain of coordinated rehabilitation teamwork at the service of the psychiatrically handicapped.

The Integration of Rehabilitation Services

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Introductory remarks: I would initiate my remarks on the integration of rehabilitation services for the emotionally ill by philosophical considerations, since it is necessary to review present concepts of traditional medicine and psychiatry, if we are to progress further in this field.

Whilst giving full recognition to the historical greatness of the present system, which has been built up by specialist practitioners imbued with the traditional scientific outlook of the nineteenth century, one must record that specialization has developed a predominant outlook, based on individual organ pathology rather than upon the consideration of the patient as a social entity. Consequently, although our scientific approach has so far brought us within measureable distance of conquering the acuter medical disorders, we are still faced with our greatest challenge — how to deal with the patient who has a psychiatric disorder, or some chronic physical disability associated with psychopathological disturbance, arising either from economic, social or innate personal difficulties.

This task is no easy one, since it is necessary to render transparent the curtain of custom which cloaks the art of healing. Ruth Benedict[1] has pertinently expressed the role of tradition:

> "No man ever looks at the world with pristine eyes. He sees it edited by a definite set of customs and institutions and ways of thinking. Even in his philosophical probings, he cannot get behind these stereotypes. . . . There is no social problem it is more incumbent upon us to understand than this role of custom."

Medicine is moving towards a growing appreciation of the role of psychological and social factors in chronic illness, and it has been a considerable pleasure to me to realize the degree of psychological insight possessed by the speakers who have so far contributed to this symposium. Yet, although every one of us has personally had encouraging results, little impression has been made upon the total chronic morbidity in the community. New ways of tackling this burden on medical and social services need to be found. It is necessary to reorientate our outlook, develop new skills, determine the optimum

structure of therapeutic units, and work towards social reintegration as a fundamental part of the practice of medicine.

It is my intention to outline for you that series of therapeutic rehabilitation schemes which extend from the home-bound patient to the patient with the so-called chronic institution, and describe those newer developments I have encountered on my travels.* Their eventual form and function have yet to be established. It may well be that what are now separate units will, for economic or other reasons, be absorbed into larger synthesized structures, whilst entirely new units, with functions not yet conceived, may evolve spontaneously. My efforts can only give direction to an horizon based on my own experience.

Before proceeding with a description of these newer ventures, it would be well to outline the present system, and then relate the former to the latter.

Public Health services have, in the past, been concerned with matters pertaining mainly to sanitation, physical hygiene and the prevention of infective disorders; and, more recently, with such activities as infant and maternal welfare and industrial hygiene. It is only within the last decade that a few countries have commenced programs of general mental hygiene in addition to the management of mental defectives in the community. It is realized that not only may chronic mental disability be prevented, but that such problems as venereal disease, alcoholism, drug addiction and criminality may also be alleviated by attention to this subject.

It is further being appreciated that much chronic illness has mental aspects which may have been prevented by early detection and management, and there is little or no machinery to deal with the problem. The need for reorientation of public health workers has been pertinently demonstrated in the publication, "Public Health Is People."[2] It may unequivocably be stated that public health services are in no position at present to cope with the major problem of the emotional aspects of illness.

The medical profession, as a whole, requires the guidance and support of out-patient and hospital teaching services, if it is to play its part in controlling these matters. Dr. Dale Groom,[3] a general physician, recently stated:

"Psychiatric illness affects the largest single group of patients . . . most of them are not in mental hospitals, but are frequenting physicians' offices to complain of innumerable and bizarre psychogenic symptoms. . . . The common neuroses, reactive depressions, involutional melancholias and other emotional disorders amenable to treatment should be recognized as such, and their victims should be treated for their actual mental illnesses rather than for some incidental and non-existent organic discrepancies, 'diagnostic placebos' which may serve as foci on which the false symptom patterns ultimately can become fixed beyond accessibility."

And, Walter C. Alvarez[4] —

"Today, we are just beginning to see that from the fringes of this huge reservoir of psychopathy we are getting a high percentage of our most troublesome patients with the most puzzling diagnostic problems. For lack of any training in psychiatry, we keep failing to see that quite a few of the patients whom daily we label as just overly worried, hypochondriac, 'enjoying illness,' chronically exhausted, unco-operative or 'ornery,' sullen, mentally inaccessible and unfriendly, are mildly but definitely psychotic."

I would only quarrel with the unnecessarily serious implication of the final word.

This type of case, appearing at the out-patient department of the general hospital receives short shrift because, it is argued, the numbers are too great and the experts are too few. Out-patient clinics, traditionally based on the "rep mist" technique, act merely as placebos. They will become therapeutic centres only when they are organized with full rehabilitation and social services. It is my contention, then, that attendances of "chronics" will fall considerably, and the scope of work will not only be more productive, but more interesting. This matter will be dealt with later.

Our general hospitals have been oriented towards the treatment of acute medical and surgical emergencies and, with the emergency over, interest was, in the past, not maintained. Any subsequent treatment was of the perfunctory type met with in out-patients. Chronicity, with its emotional concomitants, developed as the struggle for social adjustment left its mark upon the depleted forces of the patient. Many hospitals are now realizing the need for full rehabilitation departments and social services at the out-patient level. But techniques for the active reintegration of the patient into soci-

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ety are still imperfect and only the fringe of this large problem is being tackled.

The chronic hospital has developed a role of isolation by virtue often of its geographical position, but more so because of the defense mechanism adopted by society to shut its eyes and ears to distressing, traditionally incurable, and wrongly considered hereditary diseases. Lacking any productive capacity for the community, and with little backing from retreating relatives, its political and financial power has been small. Accordingly, this type of hospital has remained relatively static in its development. It is likely that many patients, sent to the chronic hospital, could have been managed in the community, if special therapeutic facilities of a new type were available. There is a tendency now to extend activities from the chronic hospital into the community and thereby render easier the free exchange of patients between one medium and another, with benefit to both. This is not of great value, however, because out-patient clinics are overloaded, and possibly outmoded, and community reintegration techniques are inadequate.

Defect Requires Remedy: Destructive criticism is unworthy. For these reasons, it is incumbent upon me to proceed with an account of recent experiments in the field of rehabilitation and indicate how they can be absorbed into the corporate mass of our present standard of medicine.

Homeworking Schemes: Schemes of employment for the home-bound disabled have existed spasmodically for some years, mainly in relation to orthopaedic and tubercular patients. In Australia we, in the Repatriation Commission, have introduced such a scheme, which is mainly concerned with the maintenance of the morale of ex-servicemen on full pension, but is also available to any ex-serviceman whose disability is related to war service and who, although temporarily not ambulatory, can be managed outside of hospital. The latter would include convalescent states associated with tubercular, orthopaedic, paraplegic or hemiplegic conditions, or remittent disorders, such as disseminated sclerosis or rheumatoid arthritis.

Such schemes require constant policing and need a realistic co-operative attitude on the part of the community, if commercial status is to be attained. I can see little extension of this type of project to full wage-earning, except as a subsidiary to sheltered industry, which can supervise the manufacture, and arrange for the marketing, of goods similar to those in the centre.

The main function of home-employment is to raise the morale of the totally disabled patient and his family by giving him avocational outlets, and developing for him vocational capacity towards subsidy of pension. These benefits would also be apparent in the temporarily disabled group and would minimize undue expensive hospitalization.

I can especially perceive the value of these schemes for geriatric cases. Early management on these lines would prevent or delay chronic psychopathological sequelae of physical disabilities.

Home-working schemes for pure psychiatric cases find little scope. Such patients are ambulatory and need to be encouraged to participate in groups. An occasional one might benefit temporarily by such a regime.

Sheltered Industry: This type of centre has probably reached its greatest development with the tuberculous, but the great social revolution occurring in England at the present time, in relation to the development of Remploy factories, shows that such projects may be extended to include the chronic sick and, indeed, many types of psychiatric patient also.

These Remploy factories are designed to carry from 50-100 patients. Of the first batch of 160, 80 are in operation and specially-designed units have now been created after the early improvization. Some of the factories specialize in orthopaedics or tuberculosis, but others have mixed chronic medical and surgical cases. One such had, of 55 patients, 8 epileptics, 1 remitted schizophrenic, 1 paraphrenic, 1 post-encephalitic and 1 paraplegic. None of the patients could hold a job in industry. These centres are staffed by laymen, with part-time medical advice available. The factory atmosphere is fully preserved and the work-situation a real one. Demands on the patient are not excessive, but each patient begins at 70% of the Trade Union rate and can work up to 99% as his efficiency increases; there is accordingly a motivation towards attaining full efficiency. Every patient, in one of the centres I visited, was stated to be originally a medical and social problem; yet, practically all settled down within one month. This centre had 26 home-bound cases who were given employment at piece-work rates.

The main points one would stress are that the Ministry of Labour is tackling the disablement problem in realistic fashion, the

motivation fostered is one of work and the attainment of self-respect, and the situation is as near the real thing as possible. These centres have to tender for work in the open market and, therefore, do not come into conflict with industry. Even if 500 factories, with 50,000 disabled, were in operation, the effect on a total labour force of some 23,-500,000 would be negligible. Moreover, this group ceases to be a drag on social services, something is actually being created for the country, and the stabler family unit which results may be expected to reduce the number of social misfits. With the improved psychological outlook and employability, the call on both out-patient and in-patient medical services is reduced.

Many psychiatric patients can be absorbed in this type of centre and obtain some place, even at reduced economic level, in the community. The socializing effect of the maintenance of a position in an employment group cannot be stressed sufficiently. The hospitalization of many patients should be able to be reduced and, to many, the sheltered workshop should be a temporary haven, either when symptoms are more acute or when a trial in society is indicated after an episode requiring total withdrawal.

I have only seen one sheltered workshop purely for psychiatric patients, and this is in relation to a voluntary ex-service group in England — the Ex-Services Welfare Society. The patients, however, are primarily treated in relation to this centre, and they obtain accommodation locally. There is a considerable degree of selection and weeding-out of undesirables. This social grouping conforms more to the type of community settlement such as the Papworth Village Settlement for the Tuberculous.

Social Therapeutic Clubs and Day Centres: Social therapeutic clubs have arisen out of those social units, which were created originally in mental institutions and were designed to fit the patient for a return to community living and prevent that deterioration which is secondary to isolation. Largely confined to the United Kingdom, where this movement is growing, and where there are over 40 such clubs now, the emphasis has been on psychiatric out-patients. It is now being perceived that these units are useful for chronic and long-standing medical and surgical cases, where some psychopathology so often exists, and similarly for geriatric patients.

These clubs deal with upwards of 90 patients and have approximately one social therapist to thirty patients, with the psychiatrist in the background. The activity of the patients is a group activity in a real social situation and after the first period of growing up with the group, responsibilities are then assumed. The society is democratic and patients, therefore, have every opportunity for participation in the running of the group and also in the many organized activities which develop out of the clubs. Patients feel they are accepted by others and build up their self-confidence through expressive activities and administrative duties; in addition, they develop an increased capacity to mix with others, because they increase the range of their accomplishments.

Social therapists have, so far, "grown up" with the job, though one three months' training course has been held in London. One may have, here, the commencement of a new worker in the sphere of rehabilitation, since occupational therapy is not the important part of this worker's role.

The patients who attend vary from chronic neurotics to chronic psychotics. A preventive or curative function may be exercised. The cost of such a venture per patient is one-thirtieth of the cost of residence in a mental hospital and, through this medium, one club may be able to keep at least 90 patients out of hospital in the course of a year and, what is more, keep many of them in employment. Attached to out-patient departments of general hospitals within the hospital precincts, or more preferably in quarters outside, such clubs may tackle the de-socializing effects of mental illness at the earliest possible moment. Their optimal structure and function have yet to be worked out, as have the qualifications and qualities of the personnel. There is a big field of research here, with the indications at present that these units have come to stay and will ultimately play an important part in our total scheme for the treatment of the chronic sick.

Two day centres, on similar lines to the above, but with a full occupational therapy program as their aim, have been started. Their development has not yet been such that any clear role has emerged. It is conceivable that they can act as therapeutic social centres, with part-time employment as an early goal.

Re-establishment Centres: These centres are more akin to the rehabilitation centres already evolved, but although much lip-service is paid to concepts of emotional factors, the integration into practice falls short. Moreover, specific centres for the re-

habilitation of psychiatric patients are very rare. The Merchant Navy centres established by U.S.A. in the last war have died and left no offspring, as have the Civil Resettlement Units for the re-establishment of ex-Ps.O.W. in the United Kingdom.

One centre, however, has grown and is, I would consider, a beacon of light in the field of re-establishment centres for psychiatric patients. This is the Industrial Neurosis Unit at the Belmont Hospital, Sutton, England. Here, a therapeutic community has been established which has given us principles which are applicable not only to psychiatric centres, but also to general medical and surgical centres. Dr. W. Maxwell Jones, who is in charge of this centre, is shortly to publish an account of his findings.[5] Here, many long-standing psychiatric and asocial individuals have been restored to full social status.

It is important that this centre be democratic, with patients participating to the fullest extent, and assuming responsibilities. By this means, attitudes and aims, which are part of the general orientation of the community, are transmitted from one patient to another and so reinforced. The nursing staff is concerned with the fostering of good group attitudes and the resolution of tensions, and there seems to be little need for traditional nursing roles. The staff and patients interchange viewpoints and work out tensions, through numerous group meetings, including psychodrama.

The work situation is a real one, carried out under true workshop conditions, and the industries established, on the advice of the Ministry of Labour, are those in which employment may readily be found. At the time I visited, plastering, carpentry, bricklaying, hairdressing and tailoring were the trades being taught. The optimum case-load appears to be twelve patients to each instructor. Patients usually attend for up to two months, but may be there for longer or shorter periods. A liaison with outside employment is established through District Rehabilitation Officers, who form part of the staff, and their opposite numbers in the local employment exchanges. If further training is required, patients are sent to the General Training Centres of the Ministry of Labour, and if unable to compete in industry, Remploy factories may be utilized.

Industrial Rehabilitation Units have been established in England by the non-medical Ministry of Labour, with lay personnel in charge. They use part-time medical officers and also employ social workers and vocational officers for aptitude-testing. These centres deal with disabled persons who have been recruited from private medical officers, hospitals, industries, trade unions, voluntary bodies, or employment exchanges. They may exercise one of three functions: tone up a patient for return to his old job; tone up a patient where he cannot return to his old job, but can easily be placed in some other employment; or retrain for a new job. Only in the latter case is there a need for vocational assessment. The scheme is based on an intake conference, followed by a special test-situation taking 10 days; then, if rehabilitation is considered necessary at a further case-conference, the patient is given a period of 5-10 weeks' workshop practice in a real work situation, coupled with physical training; finally, there is a phase of productive work when the patient is brought up to full capacity for outside employment. Patients are subsidized during the period of retraining. All cases are followed up for six months and, in that period, it is claimed that 85% are settled. It is obvious that the use of such centres must prevent psychopathology secondary to idleness and loss of morale. Whilst not specifically employed for psychiatric patients, it is undoubtedly of use for many neurotics and convalescent psychotics.

Re-establishment Centres for psychiatric ex-Service patients exist in Australia as part of a total psychiatric service. The best of these, the one in Melbourne, is developing along the same lines as Belmont, although not so far advanced. It has good occupational and recreational facilities and has three main functions: to deal with patients who require toning-up; to orientate patients who are going on to the general hospital towards acceptance of concepts of activity rather than rest; and to help resocialize convalescent patients from both general and mental hospitals.

Extra-mural Employment: There are very few hospitals making a really concerted effort at obtaining extra-mural employment for their patients. At the close of the 1939 war, a resettlement unit for ex-Ps.O.W. was established at Dartford in England and, stimulated by the favorable current attitude to ex-servicemen, the townsfolk co-operated in providing employment facilities to such a degree that almost everyone could be placed satisfactorily for training or employment.[6] A very few mental hospitals, such as for instance St. Bernard's Hospital, London, have at times had quite considerable

numbers of patients living in the mental hospital and working outside. There has been a recent report of an attempt by the Veterans Administration Hospital at Coatesville to obtain industrial co-operation, and some measure of success is claimed.[7] The New York State Bureau of Vocational Rehabilitation has succeeded in placing numbers of psychiatric patients.[8] But such efforts have been sporadic and no concerted effort has ever been made to obtain that co-operation of industry and that support of the general public which is so absolutely essential to a total scheme of rehabilitation. Sivadon[9] emphasizes the principles of placement of psychotic patients in small family-communities, working at low occupational level, and in relation to sheltered or other industry. He stresses the slowing of work-rhythms and the narrowing of aptitudes of the psychotic, and shows how he can adapt satisfactorily to such occupations as window-cleaning and floor-polishing. This will obviously apply to a certain percentage of patients who are normally residents within the mental hospital, but there will always be a hard core of grossly-disordered and demented types who will be useless. The Australian Repatriation Commission has developed a good liaison with the training authorities in all States and with the special Disablement Section of the Commonwealth Employment Service, which is concerned with the placement of problem medical cases. Their work has been made easy because of the condition of full employment which exists in Australia.

As already stated, whilst good systems of medical rehabilitation have been built up, this has not been followed through to placement within the community and to full social rehabilitation. The two main faults in our present system are that, firstly, patients are held too long under expensive medical care, and are not properly adjusted to the realities of outside existence; and, secondly, once out of hospital, reintegration within industry and the community is inadequate.

Concept of Rehabilitation: Rehabilitation has not yet been properly defined, because, as E. Dunlop[11] has pointed out, it is a process rather than a circumscribed entity — a process of restoring disabled persons to the optimum physical, mental, social, economic and vocational condition. It cannot be defined any more than law and order can be defined. It is the result of a series of activities which, taken together, result in a social situation for the community which is never a static one, and defies measurement, but may have an important bearing on any individual at a particular time.

New principles need to be developed to foster such a process and these principles must be based upon the following questions:

(a) What constitutes the optimum therapeutic community?
(b) What types of personnel are needed?
(c) How can the integration of the individual into the community best be effected?

Therapeutic Communities: It is obviously desirable that, as soon as possible, a patient be removed from the traditional acutely-sick and convalescent atmosphere of over-protection and be placed in an atmosphere of a highly-motivated, work-orientated, reality-testing unit. If chronically sick, he should be placed there straightaway without having to go through the acute hospital, unless technical necessities demand the latter course. Such units, it seems, function best as democratic communities with prestige leadership and a free interchange of ideas between staff and patients. The initial introduction to the centre must be carefully arranged. Workshop training should be related to community needs and the situation should be made as real as possible. The social structure needs to be built up around the special staff which will be most in contact with the patient. This staff may be reorientated nursing staff but, as already stated, there seems little need for traditional nursing skills; a social therapist is rather required, with special training in personal inter-relationships and psychological insights; in physical rehabilitation centres these workers might well be experts in both remedial techniques and physical therapy. It is essential that group methods be an integral part of the functions of all rehabilitation centres, whether these be in the form of didactic meetings, formal group psychotherapy, psychodrama, music or art groups, group recreational activities or spontaneous discussion groups.

Personnel: The question of personnel is one which may have to undergo drastic revision. I have already mentioned the need for the social therapist, rather than the usual type of nurse in residential psychiatric rehabilitation centres.

Similarly, for prevocational training, a combination of skilled tradesman and psychologist would be desirable, to develop vocational orientation, try the patient out "on the job," and build up confidence.

The rehabilitation counsellor might well combine the functions of psychologist and social worker, so that he might be in a position to assess disability in all its aspects and be in the best position to effect placements.

It has been my own experience that a lay educational therapy officer, with some psychological training, and the co-operation of a social worker, has been able to adequately re-establish a large number of problem medical cases, half of them psychiatric, with a minimum of medical guidance. These ex-servicemen would ordinarily have become full pensioners. The District Rehabilitation Officers in U.K. will probably be of this type, and although training so far has not been satisfactory, all these officers have had many years of experience with employment and social problems in Labour Exchanges.

There is a need for a good deal of fundamental research into this matter of the functions and training of workers in the field of rehabilitation.

Vocational Guidance: The question of vocational guidance is one which must exercise the "rehabilitation world" very considerably. Our own experience, and that of others, has led to a review of our ideas on the traditional vocational-guidance testing situation. It is becoming recognized that vocational guidance must be a total process, dependent not only upon an appreciation of skills, but also by knowledge gained from persons in constant contact with the patient in a realistic employment situation — his mode of tackling problems, tidiness, concentration and so on. Information from trade instructors, nurses, social workers and psychiatrists is usually more relevant than the results of psychological testing in an unreal situation. Vocational guidance must be a total effort, based finally on testing in a real situation.

Community Integration: For this to be successful, a community needs to possess a high degree of social development and have an active social conscience; it requires education of public, employers, trade unionists and placement officers. In England, where Remploy factories, industrial rehabilitation units, and general training centres are being established, the whole process is becoming easier.

The ultimate question which remains ever to be answered is how to integrate all rehabilitation services, from community to chronic hospital, so that overlapping of effort is avoided, and cases can be properly followed up from the acute hospital, the chronic hospital or any other unit, to final reintegration into the community. It would appear to me, on the basis of my experience with ex-servicemen in Australia, where geographical exigencies render it necessary to deal with populations centred around the large capital cities, that an integrated scheme can be provided if the population is small enough. Hence, it seems to me to be logical to split any larger population into communities of such size, that they are able to utilize all the units considered necessary, and establish them economically. A public health control of such a group would encourage prevention as a primary function, and would integrate this not only with child welfare, ante natal, marriage guidance and child guidance clinics, but also with medical therapeutic and social services.

This brings up the possible development in the future of a public health worker, perhaps developing from the public health nurse, or an altogether new type of community social worker, who will be in charge of a manageable area within the public health authority's jurisdiction, and will be responsible for the application of the principles outlined above at the community level. He, or she, would enable a patient to receive care at the earliest possible moment, and would be able to direct the patient to that medical or social therapy which might be required. In this way, medical services would be relieved of a considerable burden of chronics, patients would not deteriorate as they tend to do now, and a supervisory function could be exercised by this worker after the patient leaves medical care.

There is one other important fact that must be stressed and that is that one person must ultimately be responsible for the patient, and this can be no other than the doctor. Accordingly, if integration is to be effective, a system of documentation must be evolved so that follow-up is effective and medical supervision remains throughout the course of rehabilitation, even though the patient be handed over to other workers for more or less lengthy periods.

Concluding Remarks: I am deeply honored by the privilege afforded me of addressing you. My attendance at this Conference has been a growing-up experience for me and I have benefited enormously by the contacts I have been able to make with rehabilitation workers in the U.S.A. I am fully aware that there must be many important omissions in my statement, not only through its brevity, but also through my lack of experience of

conditions here. I make no attempt to teach; I merely give an account of my own growth and trust some of my experiences may be applicable to your own problems; if not, perhaps I have given you cause to exercise your minds. We hoe similar furrows; we plough the same field. With Shakespeare, one would say: "Let us not to the marriage of true minds admit impediments," and I am sure he would heartily endorse Emerson's famous words that: "The truest test of civilization is not the census, nor the size of the cities, nor the crops; no, but the kind of man the country turns out." It is our job to try and raise the standard of the "kind of man the country turns out."

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Session on

THE HOMEBOUND AND SHELTERED EMPLOYMENT

Wednesday, October 25, 1950 • Keystone Room, 2:00 P.M.

Presiding

EDGAR B. PORTER

Assistant Chief, Guidance, Training and Placement Branch, Office of Vocational Rehabilitation, Washington, D. C.

The Session Committee

CHAIRMAN, PRESIDING OFFICER

Same as In-Hospital Rehabilitation Service

The Sheltered Workshop as a Training and Rehabilitation Center

ROBERTA TOWNSEND

Director, Survey and Homework Department, National Industries for the Blind, New York City

Placing the subject of the Sheltered Shop and Homework in the hands of three speakers under the titles. The Training Center, Permanent Employment and Homework is a daring departure.

Those of you who are familiar with this phase of rehabilitation of the handicapped will know that the sheltered shop serving as a training center and permanent employment together with homework are virtually as inseparable as ham and eggs.

Your program committee has ruthlessly separated the inseparables and given each of us a section of this triad with the strict admonition not to mix in the other fellow's dish.

It has proved to be an excellent idea, for an attempt to divide and study these areas of vocational rehabilitation throws into sharp relief the focus and function of each, as well as the interdependence of one upon the other.

I will now do as I was told and get on with my own subject, The Sheltered Shop as a Rehabilitation and Training Center.

First, may I suggest we drop the word sheltered.

For a period of years, because of the discussions and dissatisfactions around the word sheltered, National Industries for the Blind has simply used, Shop. This has been more or less acceptable and perhaps may serve until some bright and able person steps forth with a satisfactory substitute for the almost universally rejected term, sheltered.

There are approximately some five hundred so-called sheltered shops over the country, many representing the best in modern methods of rehabilitation. There still remains, unfortunately, a serious absence of commonly accepted and applied definitions or accurate descriptions of services and few, if any, standards have been universally agreed upon.

The shop distinguished as a training center, however, is a comparatively new and healthy departure from the old and confused picture. It has probably one of the most important and perhaps one of the most difficult roles to play in vocational rehabilitation.

It is important because it is the first door open to the handicapped person looking for and susceptible to useful employment. It offers him concrete opportunity to develop his own skills and prepare himself for a job in normal industry. It is the end result of careful thought and cooperative planning upon the part of all concerned in the supporting services of the rehabilitation process. It is difficult because of the high degree of coordinated medical, professional, technical, teaching and adjustment services needed as a sound basis for such a program.

It is the combined efforts of these rehabilitation specialists, doctor, occupational therapist, caseworker, counselor, supervisor, etc., prior to and during his period of training which offers the trainee a sense of security and achievement. A plan has been made for him in which he has some definite feeling of participation rather than one arbitrarily imposed upon him. It gives him a feeling of confidence.

The skills of the doctor, caseworker, counselor, etc., differ from the technical staff. One, it might be said, prepares him for his training; the other puts into actual practice

work adjustment and work opportunity in the shop setting. There can and must be an overlapping of the two services so that the client unaware of any difference may move comfortably into his work experience.

There must be close cooperation and balance of action between the acceptance and understanding of the client by doctor, caseworker and counselor and that same acceptance translated into the scope of the shop technicians. It is the responsibility of the shop manager and supervisors to gradually and without anxiety to the trainee, impose upon him and his work performance certain positive disciplines and demands so that he may eventually be prepared to take his place successfully either in competitive industry or some form of gainful employment.

There is need for careful team work between the professional and technically trained staff in the approach and timing of this particular milestone in the training picture.

Insofar as it is reasonably possible, conditions in the shop should compare favorably with those in regular industry. Due regard and observance must be given to Labor and Health Laws and the overall procedures should reflect the best in business management.

In such a setting the handicapped trainee may not only develop his skills but he will at the same time be being prepared to meet and cope with the pressures, restrictions and demands of a job in an industrial situation.

No little problem is the selection of a variety of suitable activities through which the client is to receive his training. They must range from the most elementary to the more advanced processes offering an opportunity of reaching a maximum of proficiency as well as eventual employment possibilities.

Funds, equipment and space will be primarily the deciding factors in these choices, not forgetting the ever present variables in the general economic situation.

Definite lesson plans must be established for each process or classification of work and a time limit placed upon each. There is value in formalized schedules in terms of comparisons and recording. For the student it offers an incentive and goal. There can and should be certain flexibility allowed for constant checking of the student with possible adjustments to simpler or more advanced problems as his progress would indicate.

Regular conferences should be held between caseworker, counselor and supervisor. The problem of rehabilitation is focused upon the individual and in the training center as in any other setting, constant consideration must be given to the client and his specific needs.

The Training Center worthy of its name must be available to the most severely handicapped as well as those less handicapped who appear obviously more feasible for vocational rehabilitation.

For the person seriously disabled physically or mentally, or badly retarded from years of idleness, neglect or over-protection, a prolonged and perhaps quite painful period of adjustment may be required before a spot may be found in the training picture where he may fit.

It may be necessary for him to start at a very rudimentary level, such as learning to put on his own hat and coat, finding them in a cloak closet, finding his place in a work room, remaining at his work bench for a given length of time and many other simple procedures, before he can actually undertake any sort of work instruction or training.

A thoroughly qualified staff should possess the skill and must expend the time and patience to work out such long term problems. There is no other answer for these difficult cases.

There are undoubtedly trainees for whom we must ultimately admit failure. Let us make sure, however, that all of the professional services at our disposal have been faithfully tried before the case is finally closed.

Too often than perhaps we care to acknowledge, the tougher problems are rejected at the point of intake or just by-passed and all effort is concentrated upon those who will add up fairly rapidly to longer reports of successful adjustments and placements.

There are such things as successful failures.

If no stone has been left unturned in behalf of the client and the final recommendation is that he cannot benefit by further adjustment and training and it is determined by all concerned that for his best interests some other plan must be made for him, then the Training Center has fulfilled its obligation and has rendered a valuable service for which it need not apologize.

To shirk the responsibility, however, of the doubtful and apparently hopeless case is a gross disservice and leaves a wide gap in the overall process of rehabilitation.

The shop specializing as a Training Center has become a healthy and important instrument in the community. Its growth may

be explained in part by the fact that disablement has been recognized as a problem of employment.

It stems, too, from an awareness of the astonishing capabilities in productivity demonstrated by handicapped persons in the war years. A demonstration which dispelled the idea that permanent shop employment is necessarily the ultimate for the physically disabled worker.

Social legislation has played an important role in providing more adequate facilities for vocational rehabilitation in the Training Center and it can be anticipated that amendments to Public Law 113 now under consideration will further round out and balance existing services.

Though it is a little too early to spell out what this will mean in exact detail, it would seem desirable for us, offered an opportunity to consider the expenditure of additional Federal funds, to stop and study the strengths and weaknesses of our present programs.

As a matter of fact it would do no harm if at the same time we considered the services of our sister agencies in comparison with our own. Of course I know it is an alarming departure to come right out and tell your right hand what your left is up to, but it might prove to be a rather simple and not unintelligent way to prevent vast duplication of effort and waste of money.

Narrowing it down to our specific subject, the Training Center, before we arbitrarily recommend a great need for additional Centers, let us make certain that those already in operation have been brought to as high a level of professional and technical competence as possible and that a maximum number of eligible trainees benefiting from the services they have to offer continue to find their way into a normal industrial picture.

The Role of the Sheltered Workshop in Providing Employment for the Severely Disabled

PERCY J. TREVETHAN
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No one appreciates the consequences of unemployment more clearly than the worker in the field of vocational rehabilitation. Unemployment is abnormal. The normal and expected thing in life is the opportunity for gainful employment. If this opportunity is denied we can well expect a whole train of social and mental disorders to follow. The field of social work out of its rich and varied experiences brings eloquent testimony of the therapeutic values of employment. Disorganized personalities have been made whole, life has been given validity and meaning through the medium of work. The value of work and employment has been recognized for centuries. The statement of the Greek philosopher, Galen, "Employment is nature's best physician and essential to human happiness," is as true today as it was in 172 A.D. when he first uttered it.

We who are gathered in this room this afternoon, by our attendance and interest bear witness to this truth. We have been considering the area of service afforded by sheltered workshops and homebound programs. Our thinking has been centered around the special services these facilities can render to the physically disabled. We have set forth in a bold and challenging manner our belief in the validity of these programs. The results secured thus far support our statements.

Sheltered workshops and homebound programs are not step-cousins to rehabilitation programs. These programs are a definite part of all such rehabilitative activity. Is not the supreme objective of all of our remedial efforts the placement of the individual in gainful employment? As such, programs of sheltered, or a term I like better, special employment, are the tools and resources for the maintenance of a well-rounded rehabilitation service.

You have heard this afternoon, statements relating to these programs dealing with the special contribution made. In the remaining moments we are to consider the need for these programs and shops for service to those we cannot place in productive employment.

While we constantly hold to the ideal of productive employment and placement for the disabled, yet in the day-to-day operation of our programs we come face to face with the fact that for a limited number of persons placement in regular industry is not possible. Thirty years ago, or roughly, the World War I period, the percentage of handicapped persons not eligible for placement was high. It must be a comforting and encouraging thought for all of us in the field of vocational rehabilitation to know that this percentage figure is dropping. While it is not possible to present a precise evaluation, it is my judgment that at least twice as many severely disabled persons are now eligible for employment as were twenty years ago. The remarkable thing is that the decline has been accentuated in recent years. The work of the mili-

tary hospitals, the establishment of clinics and services by insurance groups, the work of the President's National Employ the Physically Handicapped Week Committee, the advance of medical and training techniques and an increased awareness of our common responsibility for the disabled has heightened our interest in the welfare of this group of our fellow citizens. The progress of recent years gives hope and promise for the future. Yet when we have done our best there will always remain a residual group who for one or many reasons are not able to work in regular industry. Such persons are indeed handicapped and we must have concern for their welfare. Admittedly, the problem of developing an adequate service is not easy. Usually this group is older than the average of our clients. The handicaps, both mental and physical, are of long duration. A certain degree of hopelessness and finality pervades their thinking. In short, they are our difficult cases. It is at this point we need to absorb a little of the philosophy of a slogan of the United States Marine Corps which says substantially, "We specialize in doing the impossible."

Among the factors to be considered in serving this group are the following:

Factors with respect to:

- Eligibility
- Transportation
- Special Equipment
- Control of conditions surrounding employment
- Supervision
- Productive Schedules
- Percentage of Total Program
- Allocation to this Special Service.

With respect to eligibility for this service it is assumed that every possible placement effort has been made. And even when the client has been placed in the category under consideration there is still upon us a very real responsibility for making evaluations of the possibility of placement. We will be continually surprised at what our people can do.

The need and ease of access to transportation must be considered, for usually the clients in this group have difficulty with public transportation. Special services are required to facilitate travel to and from the shop.

The conditions surrounding employment need special study. Devices not readily available in normal industry may be required. Special arrangements may be necessary in order to insure the environment essential for reasonable production.

The supervision for this group of our clients must have careful study and thought. Incentives involving rate of production, pride in workmanship and adequacy of wages must be carefully related to the need and ability of the individual. Great care must be taken to insure the prevention of the development of a philosophy which would label this group as hopeless. A greatly preferred relationship would be to look upon this group as a challenge to the supervisor. Perhaps supervisory ratings should be determined on the number of placements made from this group. Admittedly, it would be low but the fact that placements can be made would be a tribute to the skill and resourcefulness of the worker.

In the area of production a reasonable standard of activity must be secured. It would be a tragedy of the first order to permit this group of workers to set their own pace. Once again I am faced with the difficulties of this procedure but if we are to remain true to our calling we will insist upon reasonable performance. To permit loafing is to contribute to the breakdown of morale and character. The responsibility for contributing our productive ability is one of the prior claims this business of living makes upon all of us. We must be concerned about the level of activity because of its relation to the client and its value as a tool of measurement of progress or retrogression.

By far the most important factor is the percentage of our total program of service allocated to this particular group. Most sheltered, or if you please, special workshops, have many responsibilities to the community as presented in the addresses of this afternoon. A repetition of them is not necessary. A simple review of these services indicates that these shops have a responsibility to other groups. In only an extremely few cases can the facilities of the shop be wholly devoted to serving this special group. It is my opinion that it would be unwise for a shop to so limit its services. It appears to me that there is much to be gained from the interrelations developing from activities of a testing, conditioning, training and placement program. The results achieved in these areas of service will stimulate and suggest patterns of techniques for dealing with our group. Even though outside placement cannot be made, the validity of that determination should be constantly checked by the advances which are being made in other fields of related service.

I am sure no one would expect a statement

of the percentage to be given to such service, for I cannot make a definitive statement. I do suggest, however, that local needs and resources together with a sensitive and imaginative leadership will determine the portion of services which can be designated for this group of the handicapped. Increasingly, the claims of this group are before us. If we are to discharge our full responsibility for the maintenance of complete rehabilitative services somewhere along the line, this is a definite place for a service to the most severely disabled. To accept less is to admit failure of responsibility.

Having made a determination of the portion of services, there are three areas in which results may be expected. The first is from the shop itself. Making available this service is a recognition of the responsibility the shop has as a part of the social welfare fabric of the community and an evidence of its concern for the welfare of the severely disabled. The challenge of service to this group will stimulate and make more valuable the total program of the agency.

From the area of the worker the results are almost self-evident. The achieving of a useful and self-respecting place in society is among the highest of personal goals. To have a part in such an achievement is to link ourselves with the Divine in recognition of our responsibility as our brother's keeper. To open doors of opportunity is a high expression of personal interest in the welfare of our fellow men.

In the area of community welfare the adoption and maintenance of such a service appears to me as one which would merit public approval and support. The impact of social legislation and regulations is registering upon our citizenry. As to the responsibility of public or private service, we refuse to comment at this time although we do hold to some beliefs at this point. The fact that attention is being given to this group of our citizens is the important fact. As a family, as a community and as a nation we can never become stronger than our weakest members. To strengthen our power and potential at this point is to bolster the strength of the several units involved. Since one of our goals in the field of rehabilitation is to see the individual, if possible, into gainful competitive employment or, falling short of that, to see him into a situation where he earns the largest possible portion of his livelihood under sheltered, and again special, employment conditions in the shop or elsewhere. This is a method whereby we remain true to our concept of our responsibility for the maintenance of what we believe to be the essentials of our American way of life.

A final observation. It will be observed that we have been dealing with a program which has some of the elements of the ideal. It is no easy task to assume and discharge this responsibility for service to the severely disabled about whom we have been thinking this afternoon. In the development of this service our local Goodwill Industries have made only a very modest and humble beginning. But we ought not to be deterred by the difficulties. Here is a service which ought to be available. There is admitted need for it. The operating personnel of special and homebound services have many of the techniques and know-how procedures required for a successful prosecution of the program.

To expand this program we need three basic essentials. The first is a valid program. A program sensitive and alert to the special needs of this group. A program which recognizes the worth of the individual. A program which puts a limited ability over an acknowledged handicap. A program that has at its center the dignifying of service and the value of each individual's contribution to his own welfare as well as the welfare of the community in which he lives.

The second essential is valid performance. Altogether too many of our programs which appear good on paper show up to be something less than satisfactory in service. It is in this area we have a significant responsibility. We ought not to say to the handicapped and the public that we have all the answers. Most assuredly we do not. But we do know that increasingly the resources of medicine, psychology, religion and training are enabling us to achieve outstanding success in areas, in which a few years ago, we were wont to admit failure. Nothing succeeds like success. We must take our programs off of paper, modify and condition them by experience, promise little and deliver much and press on to the high calling of our profession.

Given a reasonable program and valid performance the securing of public acceptance and support is assured. The heart of America is sympathetic to those whose needs are greater than their own. We need only to let the handicapped and the disabled we serve tell their story. If our work is well done the desired result is inevitable. If we have failed, our responsibility is great and our cause is discredited.

May it ever be said of us that in an hour

of great need we have not failed those we seek to serve and we have been true to the call of our profession and the hour in which we serve.

A Program for the Homebound in a Large City

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During the last few years attention has been focused increasingly on the possibility of adjusting into some kind of part-time or limited full-time work some of those persons who have heretofore been regarded as not susceptible to rehabilitation because of the severity of their handicaps and homebound condition. This paper will describe one type of program arranged to meet certain conditions in a large city to provide remunerative activities for the homebound. It is based upon the principle that if the provision of any rehabilitation services makes a seriously handicapped homebound person even partially self-supporting, such action is a sound economic investment. It is hoped that this discussion will provide some "guide posts" that may be helpful in setting up similar programs where they do not now exist.

The program I am discussing contemplates the provision of both industrial homework and other types of home employment when feasible. However, in most cases industrial homework would of necessity be the only answer to the problem.

Here in New York State, industrial homework is subject to rigorous control by both the State Labor Department Homework Bureau as well as by the United States Department of Labor, Wage and Hour and Public Contracts Division. It is necessary to have a satisfactory working relationship and understanding with these agencies. To understand the mechanics of this program it is therefore necessary to have some familiarity with the regulations controlling homework.

The New York State Labor Law declares that: "The protection of factory industries, which must operate in competition (with industrial homework), and of the women and minors employed therein and of the public interest of the community at large in their health and well-being, require strict control and gradual elimination of industrial homework." With the gradual elimination of industrial homework as its goal, the policy of the Homework Bureau since 1945 has been to issue no new industrial homework permits to employers. The Homework Bureau also has established ceilings on the number of homeworkers an existing licensee may employ. The quota of each firm depended upon the number of homeworkers such firm had at the time the homework regulations went into effect.

Prior to 1945, in New York State, homework was rigidly restricted in the Men's and Boys' Outer Clothing Industry; the Men's and Boys' Neckwear Industry; the Artificial Flower and Feather Industry, and the Glove Industry. In 1945, the Industrial Commissioner issued a general order restricting industrial homework in *all* industries. The State regulations further provide that homework must not be distributed to unsanitary homes or where there is a communicable disease. Homework is entirely forbidden in manufacturing dolls, dolls' clothing, stuffed toys or stuffed animals, or food. There are approximately 900 employers in this State with permits to distribute homework to approximately 10,000 certified homeworkers. In addition, approximately 2,000 home typists have been brought under the industrial homework regulations by a special order effective September 1, 1950, bringing the several hundred firms in the direct-mail industry under regulation.

In addition to the State regulations, the Federal regulations cover all homeworkers employed by firms engaged in interstate commerce. These regulations are concerned with wage and hour standards and, since January 25, 1950, require a seventy-five cents per hour minimum wage. In addition to these general regulations, there are seven industries in which special Federal Homework Certificates are required by homeworkers: button and buckles, embroideries, handkerchiefs, gloves, jewelry, knitted outerwear, and women's apparel. Since most industrial homework opportunities are in these industries, in effect, an industrial homeworker must have both State and Federal homework certificates.

The Special Federal Homework Certificate may be issued only to a worker who is unable to adjust to factory work because of age or physical or mental disability or who is unable to leave home because her presence is required to care for an invalid in the home. In addition to the age or disability requirement, the worker must have been engaged in industrial homework in the industry on the date specified in the regulations or be engaged at any time in such industrial homework under the supervision of a State

Vocational Rehabilitation Agency or of a Sheltered Workshop as defined by Federal regulations. An investigation is usually made by the Wage and Hour Division to determine whether the facts justify the issuance of a certificate, and a medical examination of the worker or invalid is usually ordered. A certification of facts concerning eligibility for the certificate may be required from designated officers of the Federal or State government.

In order to prevent the curtailment of opportunities for the employment of handicapped persons, the Wage and Hour Administration may issue a Special Certificate to employ a handicapped worker, authorizing the employment by a specific employer of a specific handicapped worker at a rate lower than the minimum wage under exceptional circumstances. The wage may be fixed at a rate as low as 75% of the minimum and is designed to reflect the individual worker's earning capacity. In order to obtain such special certificate, it must be shown that the disability is a specific handicap for the proposed employment, e.g., a hand and finger impairment for work requiring manual dexterity. No such certificate is issued merely on the allegation that the worker is slow or inexperienced, or where it appears that the worker's earning capacity is impaired primarily because of the low piece rates paid.

Employers may not permit homework to be performed by other than certified homeworkers. This program I am discussing accepts for Homebound Service only those individuals whose disability renders them homebound. It is not concerned with the group required to be at home to care for an invalid or who are disabled by age.

All homework employers in the area in which such a program is set up must be contacted to ascertain their interest in employing the homebound. The mutual benefit of the program to the employer and the worker should be stressed. Only a relatively small number may at first indicate interest and willingness to make even tentative employment arrangements. The setting up of this type of program involves, therefore, continuous contacts with employers in order to learn of prospective homework opportunities and to point out that they are ensuring themselves of stable homework employees, and thus develop interest. By discussion and conference with government officials, plans can be made for the issuance of the necessary State and Federal homework certificates. In this particular program it was arranged with the Wage and Hour Division to accept the medical certification of the State Rehabilitation Division as to homebound status.

The cooperation of unions is necessary. Labor organizations are generally opposed to homework because of their fear that working conditions thereunder are difficult to control and primarily because of the possibility of an influx of large numbers of homeworkers in their industry. Some union contracts with employers specifically forbid homework. In certain instances real support can be obtained by assurances that only a limited number will be trained and placed in their industry.

Since a homework program is designed to offer work training and remunerative employment only to those persons who cannot for physical or psychological reasons travel to and from a place of business and such a program perforce must conform to existing health and labor regulations, the following practices and procedures are recommended: examination to determine eligibility for homebound service and possibility of physical improvement sufficient to go out to work; determination of employability and selection of suitable employment; job training when necessary and feasible; obtaining State and/or Federal homework certificates permitting employment with a specific employer, and providing employment and supervision for a necessarily limited period as a try-out to establish the suitability of the occupation.

Complete medical information should be required to prove the necessity of home confinement and should indicate that the condition cannot be improved sufficiently by surgery or therapy to permit the person to leave the home. If a disabled person can be made non-homebound, this should take precedence over further consideration of homework. A person in convalescent status, or where primarily diversional or occupational therapy is indicated, is not accepted under this program. It is limited to those in need of income to contribute to their support and it is wise to accept only those who have adequate motivation and personality, and who could be expected to derive an income sufficiently substantial to warrant its arrangement.

The degree of manual-manipulative ability is an important factor in the determination of employability. Almost all industrial homework is paid for on a piece work basis and productivity, therefore, is important. There should be almost complete function in the

use of both arms and hands, and at least normal speed in the use of the hands and fingers. Rough screening in regard to this factor can be made during the survey interview by simple tests such as placing of various sized small buttons, handling of paper clips and simple sewing tests. When necessary, arrangements should be made for psychometric testing. After employability has been determined, consideration is given to the vocational possibilities for homework, giving due consideration to prior work experience, if any. If there is neither a work background nor any experience which can be readily converted, careful consideration and evaluation must be made of the hobbies and interests. Testing to determine aptitudes and particularly the degree of finger dexterity should then be provided. The increase of the minimum wage from forty to seventy-five cents per hour has made this matter of dexterity extremely important. It is also necessary that someone be available who can pick up and deliver the homework regularly for the sheltered worker.

Industrial homework has been secured in such fields as ribbon and bows, embroidery, crocheting, costume jewelry, handbags, millinery ornaments and ladies' scarves, with a few doing typewriting.

The restrictions discussed apply only to industrial homework, and not to other types of home employment. Under certain favorable conditions, arrangements can be made for home employment, such as telephone solicitation, addressing, or in self-employment of some special marketable product, or, as for example, operating a circulation library.

A few examples will illustrate how such a program works out in practice:

H. S., 33 years of age, single, homebound due to deformities caused by osteogenesis imperfecta and multiple fractures of the ribs, legs, and arms, unable to walk and confined to a wheelchair. She had completed four years of commercial high school through home instruction and had never worked. Her leisure time was employed in knitting, and sewing on a portable electric sewing machine. Her hands were not affected by the disease and it appeared the disease had been inactive for a number of years. Several work areas were explored and employment was finally arranged for in ribbon bow tying with an employer with whom a very cordial working relationship had been established. Arrangements were made to have her mother receive instruction in the work at the firm and she in turn give the instruction. State and Federal permits were obtained to permit her to work for this firm. The initial period indicated that her work was of high quality but that she was very slow. However, the employer was willing to bear with the girl until her speed increased and to take a small loss initially because his previous experience had indicated that a large percentage of such referrals had turned out satisfactorily. As in most industrial homework cases, follow-up was maintained for three months after the beginning of employment, until a satisfactory adjustment appeared to have been made. She was earning $25.00 per week for 33 hours of work and had become entirely self-supporting. Incidentally, this was six months before the minimum wage was increased to seventy-five cents per hour.

E. M., 39, separated from her husband and living at home, was homebound due to multiple disabilities caused by rheumatoid arthritis. The joints of her elbows, hands, knees, and ankles were enlarged and there was a flexion deformity. There was limitation of motion of both arms above the shoulder level and the hands and fingers were deformed. She had had hydrotherapy, which had been somewhat beneficial, but she still needed two canes and the aid of a companion to ambulate. Her mother visited her daily to prepare her meals. Until five years before referral, she had been employed for a period of twenty-one years by a large New York City department store. She was referred for assistance in obtaining home fine art instruction. She had done some water colors and oils for a year and had made and sold hand painted cards at Christmas. Although her hands were deformed, she appeared to have good control, a careful technique, and had produced some good work. Her work was appraised at two art institutes and art instruction on a craft level only was recommended. The problem in this case was the procurement of adequate home training. An unusual training and employment opportunity was developed with an organization which operated photographic studios in department stores throughout the country. A large part of the hand photo coloring was done in New York City. The plant manager agreed to consider her for home employment at this work provided four additional workers could be obtained with the same aptitude for artistic work and then to bring them all together at a central point for an intensive training period. Since

some of the trainees were paraplegics, this arrangement took considerable effort and was accomplished only through the cooperation of several community agencies. The training appeared to have a wholly unexpected psychological and therapeutic effect upon the function of the extremities of this homebound woman. She became able to walk limited distances in the house without the aid of her canes and she found that the function of her fingers increased. At the end of a ten-week period the firm certified that her work was satisfactory. She was earning over $20.00 per week at that time.

I. H., 32 and married, was homebound due to spastic paraplegia of both lower extremities. The medical report also revealed Pulmonary Tuberculosis, minimal, arrested, and Diabetes Mellitus, well controlled. The hospital report stated there was no way of treating the spinal lesion. After discharge from the hospital in 1944, he had opened a small radio repair store with living quarters in the rear of the store. The family agency which referred him had been helping him for two years with loans. He had been earning only his home rent. He was steadily eating into the capital of the store, and faced complete loss of the business. The Welfare Department refused to help while the store existed. He and his wife felt, however, that since they were both handicapped, the store was one of the few things they had in life and that without it they would have no purpose. Analysis of the situation revealed that industrial homework was not the answer to this man's problem and indicated the desirability of maintaining him in self-employment by obtaining additional sources of income and greater traffic in the store. Through cooperation with the postal authorities, there was obtained a contract post office sub-station for the store. He was provided with specially-built equipment to enable him to operate this sub-station. This immediately provided the man with a guaranteed income of $800.00 per year and provided a large increase in store traffic and potential customers. Following this, he developed a general sundry merchandise business of quick selling low-priced items. A special examination was also arranged at his home which resulted in his appointment as a notary public, thereby obtaining an additional source of revenue. Placement equipment was provided to establish him in key-making. As a result of all this, the man's business was saved and he was rendered fully self-supporting. He has now branched out into the wholesale distribution of tubes and radio parts, and is doing very well.

At the present time there is under consideration a plan including the Home Care and Rehabilitation Services of Bellevue Hospital, the embroidery industry and the Rehabilitation Service to train a group of the hospital homebound patients in embroidery work. Those successfully completing this pre-vocational training will be provided with home tutorial training.

It can be seen from this discussion that while "guide posts" can be established, a vigorous imagination is an essential ingredient of work with the homebound. There are no set formulas which can be applied although experience has dictated the practical necessity of establishing certain controls to determine eligibility and susceptibility.

In conclusion, this homebound program I have described is a service planned to render the homebound person able to function through his initiative, without further help. It does not include the provision of facilities for continuous supervision or for a pick-up and delivery service. This is a plan to get the homebound person started and not to provide permanent assistance to keep that person going.

This program has provided a very seriously disabled group with a chance to work and earn and thus to live in dignity.

A Program for the Homebound in a Rural Environment

J. HANK SMITH
Director, Division of Vocational Rehabilitation, Tennessee

The rehabilitation of the severely disabled and the homebound who are eligible for and in need of service under the present Rehabilitation Act has caused much concern in all sections of the State of Tennessee but especially so in the mountainous sections of East Tennessee. Due to difficulty of transportation, these people have little formal education. Training agencies and employment opportunities are non-existent, and when we add to this the refusal of many of these mountain people to leave their homes for training and employment, you have a situation which is difficult to solve.

Vocational Rehabilitation, along with democratic principles of government, embodies the philosophy of an equal opportunity to all, or at least, the greatest possible effort at all times toward that goal. Thus

the true philosophy of Vocational Rehabilitation is pointed out in the theory that special services should be rendered to the individual who, on account of circumstances beyond his control, finds himself in an unfair, an unnatural and a disadvantageous position as he attempts to become vocationally adjusted in society, when such condition has its cause in the existence of physical or mental ailments that are of a permanent nature and not ordinarily associated with the normal person. With this philosophy as a guide, the Director called a meeting of the professional personnel in East Tennessee to try to find a solution to this problem; and out of this meeting came the idea of handicraft as a means of solving some of the problems of the severely disabled and the homebound. It was understood that this program if started was not to take the place of any training opportunities or possibilities for employment which already existed but was to supplement them since all the severely disabled and homebound neither would be interested in, nor could profit by homebound training.

For example, Ephriam Green, a thirty-year-old man, who has been a paraplegic since early boyhood, was interested in becoming a watchmaker and could not have been rehabilitated in craft work. Four years ago, when the Counselor visited him in a remote section of Sevier county, he was one of those unfortunate individuals whom the people of his community considered to be a helpless and hopeless cripple. It took Ephriam and the Counselor two years to get the permission of his parents to go away for training. The result is that he now has his own shop and is averaging seventy-five to a hundred dollars a week.

One of the Counselors working out of the Chattanooga office found a little girl living in the Cumberland Mountains who had fallen from a tree at the age of nine and the injury had caused complete paralysis of her lower extremities, with loss of control of kidneys and bowels. This girl was talented in art and was interested in learning to retouch pictures. She was trained and is now working in a studio in Chattanooga, making a good salary, paying for her room and board and feels that she is accomplishing something in life.

Marshall Holbert, a man of about forty-five years of age, who lives in the Knoxville area, was severely disabled because of far advanced tuberculosis and loss of hearing. He only had an eighth grade education and had been employed most of his life as a mechanic on heavy machinery. When he was first interviewed by the Counselor, he said he did not think there was anything he was able to do. After much counseling, the objective of Old English lettering was set up so he could letter the diplomas at the University of Tennessee, as there was no one in the Knoxville area who could do this work and the diplomas were being sent to Philadelphia to be lettered. After six months' time he was lettering the diplomas and doing a good job but he could letter only about eight a day and spoiled several in the process, which he had to pay for. Since he was receiving only eighty-five cents a diploma and he felt that it was a seasonal job, he requested that he be trained in watch repair. He had ability along this line and was sent to a watch repair school. In due course of time he completed this training and set up a shop. He did so well with his watch repair shop that he employed a helper, and he also continued to do the lettering. This last year the University of Tennessee raised the price of the lettering from eighty-five cents to one dollar and twenty-five cents per diploma; and since he did not spoil very many diplomas, he was not required to pay for them. He did more than 5,000 diplomas last year and, along with his watch repair shop, he made close to $10,000. Five years ago, he started training and had no hope for the future. Since finishing his training, he has bought a home which is probably worth $15,000 and will have it paid for by next summer if everything goes well and he has bought and paid for a new automobile.

These individuals were willing to leave home and did well; but we were still unable to do anything for the hundreds who were either physically unable to or unwilling to leave home for training. In order to determine if handicraft training would be of value to our clients, it was necessary to go into the homes and communities and to study the people, the products, and the market.

What is meant by handicraft? In answer to this question, I shall quote Mr. Allen Eaton, who has written a beautifully illustrated book on handicrafts of the Southern Mountains. Mr. Eaton says, "The word 'handicraft' is a broad term including all those things which people make with their hands either for their own use or for that of others. The article may be fashioned entirely by hand, including the preparation of all of the materials, even to the shaping of the tools employed, or it may be made in part by

machinery, as in the preparation of woods for fine cabinet work, or as in the machine spinning of thread and yarn to be woven on the hand loom; but if the final product, the character of the thing itself, is shaped by hand, it is an object of handicraft."

To show what these primitive people had in their homes, I am again quoting from Mr. Eaton, "Just as primitive and as simple as the cabin was the furniture for it, and usually of the same materials. The selection of wood, however, was not determined by what grew in the vicinity, but often by tools a Highlander possessed for working the trees into lumber. If he had only an ax and a pocket knife, he would be limited to those woods which would chop and split readily, for it was many years before there was any rip-saw or lumber mill in the region where smooth boards were made; instead, boards were split out with ax and frow and then smoothed with plane or drawing knife."

"In addition to tables, chairs, benches, bedspreads, small in number to begin with and increasing with the family growth, were the few essentials for making cloth and clothing, the spinning wheel, the loom, the cotton gin, the break and hackle for flax, reels, and other spinning and weaving apparatus for wool, cotton, or flax. All of these were usually made in the home, although from the earliest days neighborhood chairmakers, basket-makers, and carpenters were drawn upon for special furniture and furnishings."

"The family textiles included coverlets, blankets, table covers, linsey-woolsey, jeans, and a variety of weavings. But pottery was not a household craft, rather a neighborhood industry, which had its makers of jugs, crocks, churns, pots, plates, cups, saucers scattered all through the Highlands, where some of the pioneer kilns still survive."

"With the wooden trenches, noggins, piggins, spoons and forks, gourd dippers, skimmers, pottery, churns, crocks, baking pots, and common dishes, most of local manufacture, and an occasional 'fotched on' pot or pan for the fireplace, where for so long all the cooking was done, the kitchen was complete. The furnishings of the cabin were severely plain, hardly ever being marked by a surface design or decoration. Thus we find the pioneer mountain family supplying almost all of his needs with his own hands; but about 1890 much of the old work was rapidly disappearing, particularly weaving, which had always marked the home life of Country."

In 1910 the Pi Beta Phi Sorority, a national organization of college women, decided to establish a settlement school, and requested information from the Commissioner of Education as to the locality in which to undertake such a project. East Tennessee was recommended, and after much investigation, Gatlinburg was selected as the site for the school.

In 1912 when the school was established, Gatlinburg was a small community comprising about six houses, three general stores and one church. In the surrounding hills and valleys, however, lived about two hundred families who were anxious that their children have the educational opportunities which it had not been possible for them to have.

When the tourists started coming through Gatlinburg to see the Great Smoky Mountains National Park, which was established in 1931, they saw the beauty of hand-made articles and began to buy them, which stimulated the people of the mountains, who had almost forgotten the crafts, to revive the art. The Pi Beta Phi School was greatly responsible in this revival. They persuaded the parents of the school children to bring out the old looms and other native equipment and put them into operation. Some of the women, who had not seen a loom in thirty years, had not forgotten one single thing about weaving, and soon were at it again. The making of furniture was started, and the woodcrafter, and carver shops were set up.

Love of a life of freedom and independence caused these Anglo-Saxon people to continue to live in the mountains, and remain isolated from each other and the outside world until after the beginning of the present century.

The crafts center for East Tennessee is Gatlinburg, and it was through the influence and guidance of the Crafts Guilds, Pi Beta Phi Sorority, and the University of Tennessee that the Tennessee Division of Vocational Rehabilitation employed a teacher on a tutorial basis to instruct severely disabled and home-bound clients in arts and crafts to help these people become bread earners as well as bread consumers.

The people living in and around Gatlinburg have for several years been producing and selling more than one million dollars' worth of these articles each year. The Arrow Shop at Gatlinburg is giving employment to more than 150 people, many of whom are making more than $100.00 a month from

the sale of their products. Many other shops and individuals are making a good living from the sale of these products produced by hand.

It was our thinking that if so many people could profit by making and selling handicraft products that it might be a means of occupation and support for some of our severely disabled clients.

Before employing craft teachers, Miss Mariam Heard, who is Director of the Crafts Department at the University of Tennessee, was contacted; and she gave much valuable advice. She insisted that if the program was to succeed well qualified people must be employed, since the standards for the finished products were very high and only well made articles could be sold in the craft shops.

In order to get this program started, we expected to have to work hard but little did we realize at that time the obstacles and difficulties to be overcome. The success of this program seemed assured. We had hundreds of severely disabled people needing the training, we had found three experienced and well qualified teachers, and we had one of the best markets for our products in the United States. On July 1, 1948, three craft teachers were employed on a tutorial basis; and the program was under way.

The teacher working out of the Johnson City office started with three pupils working part-time. Since she was working only part-time, we agreed to pay her two dollars an hour, and each pupil was to receive four hours of training each week. Looms and training materials were bought and everything went well for a period of two months and then the father of the teacher became seriously ill and she was forced to give up her work. It was two years before another qualified teacher could be found for this territory, and naturally these three pupils were at a standstill during this time. A teacher was employed on October 1, 1950, and is working full-time (eight hours a day and five days a week), has twelve pupils and receives $30.00 for each student or a total of $360.00 a month.

The teacher employed by the Knoxville office had her Master's Degree in Arts and Crafts at the University of Tennessee and also had several years' experience as home economics teacher in the schools of Knox County. She started with twelve pupils and received $30.00 for each student or a total of $360.00 per month.

We have mentioned several times that this program was started for the seriously disabled, and you will no doubt be interested to know the disabilities of these people. I am listing only the major disabilities, but many of them had multiple disabilities.

Paraplegia (4)
Rheumatic Heart Disease (3)
Pulmonary Tuberculosis, far advanced (6)
Amputations, bilateral (4)
Poliomyelitis, disabled legs (3)
Arthritis (3)
Spastic Paralysis (6)
Kyphosis, severe (3)
Osteomyelitis (1)
Ankylosis (1)
Epilepsy (2)
Lymphedema (1)
Atrophy of right arm and leg (2)
Cosmetic Defects (1)
Mental Deficiency (2)
Muscular Dystrophy (1)
Speech Impediment (1)
Cardiac (1)
Hard of Hearing (1)
Flexion, Extension of fingers (1)

The teacher in the Knoxville area was employed for a period of one year before it was necessary for her to give up the work for personal reasons. She was very successful with these people and many of them became expert craftsmen. It was proved beyond a doubt that they could not only do this type of work but also turn out a salable product. Their first products were sold in the local communities as fast as they could be made. It was known, however, that this market was temporary because in a few months the demand would be supplied. The teacher was a member of the Guild and was soon selling through that organization as well as the shops.

Training programs were started for 47 people. You will probably be interested in the types of handicraft training offered:

Leather worker
Metal worker
Jewelry maker
Stenciler
Plastic worker
Weaver
Rug hooker
Rug designer
Stuffed toy maker
Cabinet maker

During the first year, 25 of the 47 cases were closed as employed. The type of job and range of salary of the 25 cases is as follows:

5	Leather workers	— $ 5 to $18	weekly
14	Rug weavers	— $ 5 to $18	"
1	Metal worker	— $ 8	"
1	Jewelry maker	— $15	"
3	Cabinet makers	— $ 5 to $23	"
1	Stuffed toy maker	— $ 5	"

As soon as the first teacher quit in the Knoxville area, another lady who had her Master's Degree in Arts and Crafts took over her work, but she was only able to work one month due to her health. For a period of eleven months we were unable to find a teacher for this territory. This was very unfortunate since a great many of our people became discouraged and stopped work as soon as they had no one to direct their work. We were able to find a teacher, and she started to work on August 1, 1950, and the program is now in full swing.

A well-trained and qualified teacher who had experience was employed for the Chattanooga territory. She was given twelve students and the same salary, $30.00 a month for each student. Her husband had an automobile, and she was to learn to drive; but as it turned out, she was unable to drive and the Counselors spent a great deal of time transporting her to one pupil and then another. She did a good job in training the pupils but was so lax with her bookkeeping she could not keep up with the articles placed on sale and there was much complaint about the clients not receiving money from the sale of their articles. This situation proved to be so bad it was necessary to find another teacher.

The second teacher was a graduate of the University of Tennessee and had her Master's Degree in Arts and Crafts and proved to be one of our finest instructors. She was paid on the same basis as that of the other teachers. By this time, we realized that our problem was in being able to keep good teachers and to sell the finished products. We realized that as our program was to grow and develop we must develop satisfactory sales outlets. To promote this phase of the work in the Chattanooga area, an organization was effected entitled "Tennessee Valley Handcrafts." This organization is a non-profit organization with the objective of developing sales outlets and promoting high standards and good quality crafts. To give an illustration of some of the work this organization has done, an exhibit was arranged at the Chattanooga Industrial Show February 28-March 1, 1950. This show was held in the city auditorium and ran for three days. It was sponsored by the Purchasing Agents Association representing the various industries in Chattanooga. They rent the auditorium and sell booths to the various industries to meet the cost. They were kind enough to donate to Tennessee Valley Handcrafts space worth about $450, or the equivalent of three booths, for demonstrations and displays. This show is an annual affair and usually attracts from 50,000 to 75,000 people. We had a great many compliments on our displays and demonstrations and many people said that this exhibit attracted more attention than any other single booth in the show. We feel that this is a good step in educating the people of Chattanooga to the purchase of handicraft articles. We were not permitted to sell any items at this exhibit but took orders for items to be delivered after the exhibit.

Vocational Rehabilitation had a large and small loom in operation and a leather worker. The Rehabilitation for the Blind had chair caning, basket making, and rug assembling. We had a nice showcase and wall display cabinet purchased by the Tennessee Valley Handcrafts for the purpose of establishing a permanent outlet in the downtown area in the near future. We had scheduled metal work and white oak split bottom and basket work, but the clients who were to do this were both in bed with the flu at the time of the show. We had the following types of articles on display at the booths: Woven rugs, bags, mats; napkins; aprons; table runners, etc.; leather slippers; purses; key cases; wallets; buttons; belts; metal work in copper, brass and aluminum trays, bowls, ash trays, candle holders, bookends, boxes; stuffed dolls; braided rugs; wood work — coffee tables, chairs, trays, bowls, servers.

Thirty-three cases were initiated into training in the Chattanooga areas. Fifteen were closed as employed, as follows:

10	Weavers	— $ 5 to $15	weekly
1	Cabinet maker	— $15	"
2	Leather workers	— $10	"
1	Rug maker	— (Family worker)	

We found that we were still plagued with the problem of not being able to keep crafts teachers. The husband of the teacher in Chattanooga was drafted in August of this year; and in order to be with her husband, she quit her job to go with him. However, we have employed another teacher to take her place, effective November 1.

Despite all of the trouble we have had in keeping well qualified teachers, we still

think this is one of the most worthwhile projects that has been started in East Tennessee.

ESTABLISHING A HANDICRAFT PROGRAM

Listed below are some of the factors which may be considered in starting a handicraft program.

I. Selection of a Desirable Instructor

A. The instructor should be mature, settled, and have recognized ability in appropriate fields.
B. The instructor should be employed on a full-time basis, so that all his time can be spent with the handicraft program.
C. The instructor should be interested in remaining permanently with the handicraft program.
D. The instructor must have a car and be able to drive on all kinds of roads during all seasons of the year.
E. The instructor must be willing, anxious, and able to work with people of any financial or educational level. He must be willing to enter any type of home and work with the client in his environment.
F. The instructor must be willing to work, study, and plan long hours each day. In other words, work from "can to can't."

II. Selection of Client

A. The cases are worked up by the Counselor as any other case for training, but they are carefully screened, consideration being given to the degree of the disability. The Counselor and the teacher visit the client together. The education, interest, coordination or manual dexterity, mental ability, and intelligence quotient are all evaluated.
B. In most instances, the selection of handicraft cases should be confined to the homebound or the severely disabled people.
C. Many of our best handicraft cases have come from those who haven't received, and are not eligible for, any public assistance, since they are usually interested in earning their own living.
D. Client must have a genuine interest in handicraft.
E. In selecting a client, it is necessary that his family members be sympathetic with him and with the instructor.
F. Client should have sufficient intelligence to do the type of work selected for him.

III. General Precautions

A. Do not discontinue supervision.
B. Avoid constant changes in supervision.
C. Careful selection should be made of marketing facilities.
D. The instructor should keep proper records, reports, and details.
E. Extreme care should be taken on the part of the Counselor to not "over-sell" the client on the handicraft program or the income from this type of work.
F. Precaution should be taken to see that all handicraft articles are quality merchandise, in order to be salable. It is well to formulate a set of rules to cover the acceptance of articles for sale, and these rules should be fully explained to the client.

IV. Advantages of the Handicraft Program

A. It provides an opportunity for severely disabled people to at least become partially self-supporting.
B. It is valuable to those needing occupational therapy.
C. It is valuable training and work experience for the physically limited in remote rural areas where employment facilities are not available.
D. It gives clients with special interests and abilities in craft work an opportunity to receive proper training and become self-supporting.
E. The handicraft program may be used for any age group and for both sexes.

Session on

AMPUTEE REHABILITATION

Thursday, October 26, 1950 • Grand Ballroom, 9:00 A.M.

Presiding

JEROME LAWRENCE, M.D.

Hospital for Special Surgery,
Consultant, Veterans Administration, New York City

The Session Committee

CHAIRMAN, PRESIDING OFFICER

HENRY KESSLER, M.D., *Medical Director, The Kessler Institute for Rehabilitation, West Orange, New Jersey* • MONROE LIPTON, *Information and Education Specialist, Prosthetic and Sensory Aids Service, Veterans Administration, New York City* • IRVING TEPPERBERG, M.D., *Chief of Physical Medicine, Regional Office of the Veterans Administration, New York City* • MICHAEL MULLIGAN, *Supervisor, Amputee Service, Division of Vocational Rehabilitation, New York City*

The Civilian Program—The Purpose, Procedure and Method of an Amputee Service

MICHAEL MULLIGAN
Supervisor, New York State Division of Vocational Rehabilitation, New York City

I am going to ask you to accompany me in spirit to the surgical ward of a local hospital. We are going to see John Doe, who was involved in a serious accident necessitating the amputation of his left leg. As we enter the doorway of the hospital, let us make our way across the corridor to the elevator and take it to the fourth floor. Dr. Jones tells us that while the patient has suffered considerable shock, he will recover. Time and good care must do the rest. We continue to the bedside of the patient and, as we approach the recumbent form we say with sincere fervor, *There but for the grace of God am I.*

But what about the patient himself? As the effects of the anesthetic wears off and John Doe returns to consciousness, he experiences a sense of physical relief that the injured leg will trouble him no longer. This aura, however, does not last very long. His mind soon goes into action. Thoughts keep racing through his mind: haunting thoughts; terrifying thoughts; persistent thoughts about his misfortune, about himself, about his family. In rapid succession he passes from the awful realization that he is a cripple, to such questions as *Why did this happen to me? What hope is there for me now? How will my wife and children take it? What will my friends think? Can I get an artificial leg? How can I pay for it? Will I be able to use it? Can I ever work again? What kind of work can I do? Where can I get a job?*

These are practical questions and they demand practical answers. It is fine to assure him that he is not a hopeless cripple, but it is more important to help him how to overcome his handicap by wise counseling and guidance, by providing him with competent medical treatment and supervision, by offering him assistance in the purchase of a limb and training in its use, by encouraging the learning of new vocational skills, and most of all, by effecting placement as soon as possible.

It is our belief that each one of these items is an essential part of any amputee program because it attempts to answer the questions uppermost in the mind of John Doe and every other amputee.

Part One:

THE REHABILITATION EVALUATION

John's first need is a rehabilitation evaluation. Broadly speaking, an evaluation is a sizing up process. A physical evaluation is an attempt to determine the individual's capacity or limitation for performing certain physical acts. In vocational rehabilitation, we are concerned not only with John's physical capacities or limitations, but also his interests, aptitudes and abilities as a means of helping him to select a suitable work objective. Since this is the cornerstone on which his future depends, it must be carefully and skilfully handled. Only when all data has been assembled, weighed and analyzed, should a decision be made.

GENERAL MEDICALS ARE IMPORTANT

All clients of the Division of Vocational Rehabilitation are given a general medical examination. More often than not the amputee and even interested social agencies are not convinced of the need for this procedure. Besides being used as a means for determining John's eligibility for service, it establishes his work limitations and his need for further medical or surgical care by uncovering hidden and secondary disabilities. Very often, in the case of other amputees, the amputation is only an outward sign of an inward condition which in itself may be just as disabling as the primary handicap. Such conditions, as arterio-sclerosis, diabetes, osteomyelitis, Beurger's Disease and circulatory problems following frost bite or burns, continue to exercise their influence on the physical condition of the amputee. The degree to which this influence is felt will determine his ability to work. The same is true of cardiac involvements. Just as noteworthy, are such secondary disabilities as hearing or visual defects, surgical problems, blood conditions, etc. It is hard to conceive of any counselor making a true evaluation without these facts on hand.

There is nothing new in this approach. Private agencies have attempted to solve these problems for years. It is a tribute to their personnel and the agencies themselves that they have done such a remarkable job. Their efforts, however, have been limited due to fields of specialization, limitations of funds and lack of personnel. As a result, the amputee has had to obtain his services from many agencies, each one of which is very often working independently of the other. The effect on the amputee has been one of frustration, delay and inactivity. Under such conditions, it became only too apparent that there was a need for an overall agency on a *State* level which would serve as an integrating and coordinating force. supervising the total rehabilitation of the amputee. The D.V.R. of the State Department of Education has done just that in making available to all amputees a complete program of counseling and guidance, medical examinations, treatment and follow-up, physical restoration including the purchase of prosthetic appliances, physiotherapy, gait training and work therapy and vocational training followed by job placement.

THE NEW YORK STATE PROGRAM OUTLINED

If I were asked to outline our program, I would say it falls into three main categories divided as follows:

I. The Rehabilitation Evaluation
   1. General Medical Examination
   2. Stump Examination
   3. Counseling and Guidance
      a. Psychological Preparation
      b. Analysis of Physical Problems
      c. Vocational Analysis
      d. Plan Development

II. Physical Restoration
   1. Physiotherapy Treatment
   2. Choosing a prosthesis
   3. Checking the prosthesis
   4. Gait Training

III. Vocational Training
   1. Work Therapy
   2. Specialized Vocational Training
   3. Placement

STUMP EXAMINATION

One of the most important contributions of the D.V.R. program for Amputees is its insistence on a specialized stump examination for every amputee. From a vocational point of view there are many disagreeable experiences where this is omitted. In many cases because of skin irritations, ill-conditioned stumps, ulcers and pronounced contractures there have been increased costs and the rehabilitation of the amputee has been delayed. Arrangements were made several years ago with Dr. T. Campbell Thompson and Dr. Jerome Lawrence of the Hospital for Special Surgery to set up an Amputee Clinic. Under their expert medical supervision, John and every other amputee is given a threefold examination:

a) to determine the condition of the stump
b) to secure recommendations regarding the further treatment of the stump
c) to secure recommendations regarding kind of a prosthesis he should have

It is to be noted here that the Amputee Clinic offers an excellent example of teamwork in action. The doctor and the counselor, the social worker and the therapist, the limb fitter and the instructor are all brought together to discuss John's program and the steps necessary to bring it to a successful

conclusion. Once the decisions are made, the plan is put into action and John Doe's rehabilitation has begun in earnest.

COUNSELING AND GUIDANCE

Few amputees, if any, have an adequate understanding of the complexity of their problems. In those cases where they do, they are not in a position to provide their own solution because of lack of facilities or financial need. They require, therefore, a person who is trained to understand their needs, who knows the available facilities and who can provide the services necessary to restore them to gainful employment.

PSYCHOLOGICAL PREPARATION

A trained counselor recognizes the fact that before any program can be initiated, John needs to be psychologically prepared. He has doubts and fears which must be dissolved. He must be assured that his problems are neither new nor insurmountable. They are new only to him. They are insurmountable only if he considers them so. His interest must be aroused by outlining the gains to be secured for his family and himself. And, above all, his cooperation must be enlisted to make them possible.

ANALYSIS OF THE PHYSICAL PROBLEM

The second step of the counseling program offers John Doe an analysis of his physical capabilities as they are related to a vocational objective. This analysis is based on a consideration of all medical findings plus his own estimate of his disabilities. Such restrictions as "sedentary employment only," "light activity only," are self-explanatory. On the other hand, if John has a below-the-knee amputation he has a greater range of activity than someone who has an above-the-knee amputation, or one who has amputations of both legs. The vocational objective which is ultimately selected must be consistent with these facts.

John's ability to handle transportation is another physical problem. I am, of course, speaking of public transportation such as buses, subways and trolley cars, which John and most of us use. Whether or not he can travel long distances, climb stairways, ascend high steps, dodge closing doors and move in big crowds are controlling factors in his selection of a suitable vocational objective.

VOCATIONAL ANALYSIS

A third part of the counseling program offered by the D.V.R. is the vocational analysis. Here, under the guidance of the counselor, John's work experience, interests and hobbies are reviewed, discussed and weighed in the light of his new status. Long forgotten skills are uncovered, brought to light and evaluated for their potential value. Job adjustment possibilities are considered, particularly what hazards are to be avoided and what working conditions to be most desired. Where a new vocational objective seems necessary, John is given psychological tests and exposed to work therapy programs as a means of assisting him in selecting that vocation in which he is most likely to succeed.

PLAN DEVELOPMENT

All the analyses in the world are useless unless the results are checked and a course of action is planned. That is why Joe must be given a composite picture of his needs. He must be shown the steps he must take to meet them. He must be given the necessary help to overcome them. If the plan is complete medically, physically, psychologically and vocationally, John's problem will be greatly diminished.

Part Two:

PHYSICAL RESTORATION

Once John's needs have been established, he is ready to begin his physical restoration. For an amputee this usually implies taking physiotherapy exercises, securing a prosthesis and then learning to use it. Here again the Division of Vocational Rehabilitation offers him a completely supervised medical program. Treatments are initiated as soon as possible because experience has proved that there is less likelihood of complications setting in which would delay his rehabilitation.

PHYSIOTHERAPY TREATMENT

It may come as a surprise to many of you that while John may not need it, practically every other amputee is in need of physiotherapy before he can be fitted with a limb. This is due sometimes to inadequate instruction on the care of the stump. Or it is because the amputee himself has been negligent in carrying out those instructions which he did receive. In either case many amputees develop contractures of the hip or knees which must be eliminated before they can be fitted. The D.V.R. provides this treatment at the Amputee Clinic. It also provides a medical check-up at the end of treat-

ments to determine whether the patient is ready to be referred for a prosthesis.

CHOOSING A PROSTHESIS

If John has never felt the need for counseling and guidance before, he is ready to concede when it comes to choosing an artificial limb. Neither he nor his closest friends are in a position to give him advice in this respect. Recognizing this fact, the D.V.R. has set up the following outline to assist the amputee in making the best possible choice of a limb:

1. A medical examination for the purpose of securing recommendations regarding the most suitable type of prosthesis.
2. A prescription signed by the examining physician, specifying any modifications to be incorporated in the prosthesis.
3. A special referral to three or more recognized manufacturers for the purpose of comparison and exercising a choice. The client must make his choice known in writing.
4. A briefing on/and the importance of such factors as workmanship, material, appearance and utility in selecting a prosthesis.
5. An offer of financial assistance in the purchase of the limb where financial need exists either in whole or in part.

CHECKING THE PROSTHESIS

We have repeatedly alluded to the constant medical supervision which is observed in the New York State Program for Amputees. Nowhere is the efficacy and wisdom of the supervision made more apparent than it is in the check-up on the fit of the prosthesis. The amputee takes renewed assurance from this fact: that everything is done to get the best possible fit with the least possible loss of time or effort. If the fit is good, the rest of the program can proceed. If it is not then immediate steps are taken to make the necessary corrections. To meet this need the following program has been set up:

1. The medical check-up must take place no less than two and no more than seven days after the prosthesis has been secured. This is done to allow the amputee sufficient time to use the appliance and yet not too long to develop any serious conditions or bad habits of walking.
2. The limb manufacturer must be present to discuss with the doctor any problems of fit or adjustment.
3. Arrangements are made for immediate correction when the adjustments have been agreed upon.
4. The same procedure is repeated to check on the adjustments.
5. Medical approval of the fit must be secured before payment is authorized.
6. Gait training is scheduled immediately.

GAIT TRAINING

Having checked the fit, John is now ready for training in ambulation. Left to his own devices, he will learn to walk with some degree of effectiveness but experience has proved that he has learned at a great sacrifice of time and effort. Many of his later difficulties with the stump and the prosthesis can be traced to faulty walking habits. Under the direct supervision of a qualified instructor, John is taught the correct way of walking in order to obviate these difficulties and insure him of the greatest possible comfort. His progress is checked from time to time and only when the best possible proficiency has been secured, he is discharged.

Part Three:

THE VOCATIONAL TRAINING PROGRAM

Our New York State program for all handicapped including the amputees is directed to one end, the return of the handicapped individual to gainful employment. Physical restoration is but the forerunner of many other services which are and must be provided before John can return to work. Such services as work therapy, specific vocational training and placement are provided depending on the need for them.

WORK THERAPY

In providing work therapy, John is given an opportunity under medical supervision:

1. To develop his strength and muscular coordination.
2. To stimulate his interest and develop work habits.
3. To restore his work tolerance under simulated working conditions.
4. To regain his emotional stability.
5. To explore new skills and discover new abilities

SPECIALIZED VOCATIONAL TRAINING

The need for the development of new skills is sometimes advisable where amputees are concerned. While John is convalescing he can be provided with tutorial training

or correspondence courses in keeping with his aptitudes and abilities. When the time comes more specialized training is arranged for in recognized schools, shops and centers.

PLACEMENT

The final service which the D.V.R. is ready to offer to John is placement. Placement is a selling job as far as the handicapped are concerned. It calls for a knowledge of physical capacities versus job demands. The amputee needs an individual trained in this field to effect his return to employment. Sometimes it merely is a question of job adjustment. Other times, it is a question of showing the advantages in hiring the amputee, who, if he is vocationally well placed, will pay dividends in increased efficiency, loyalty and devotion.

SUMMARY

Ladies and Gentlemen, I have tried to outline our New York State program for the amputees. It is not the work of one individual but rather the result of the coordinated efforts of a team devoted to a common cause, the return of John Doe and others like him to gainful employment. As the Chairman of this conference has so aptly said, "It has come to be recognized that total rehabilitation requires the acceptance of a common purpose for all services and close cooperation and understanding of all agencies contributing in any way to the medical, physical, social, economic and vocational welfare of the handicapped. Rehabilitation is not the work of one agency nor can it be achieved by any one of the many services engaged in this work. It requires teamwork, understanding and cooperation by all."

The Veterans Administration — Contribution to the Civilian Program

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Today, as we enter the second half of the twentieth century, we can pause a moment in appraisal of the accomplishments in the field of prosthetics.

With each successive war, throughout history there has been a surge in the development of aids for the war's casualties. This pattern has been repeated time and time again, and goes back to those early Roman days, or before, and then through the Middle Ages when knights on horseback wore artificial limbs to conceal their loss. When modern surgical techniques emerged in the nineteenth century, they brought a new impetus to the invention and development of devices for the amputee, but the effort was far behind the needs or the essential requirements of more than 20,000 war service amputees. These are but a fraction of the nation's total amputee population, but through definite government action a broad concept of facing the problem was met, and during the past five years of intensive research, development and education, tremendous strides have been made which are bringing comfort, happiness and greater usefulness to the amputees of this nation.

In the broadest sense, this program to aid the amputee veteran with better appliances is of benefit to *all* amputees. Information and educational materials in the form of reports, pamphlets, motion pictures and displays are being made available to all agencies, both public and private, for the purpose of broadening the understanding of the new devices and research now being conducted.

Training courses have formed a major part of our endeavors. The Suction Socket Training Program is an example of how the government, with the full cooperation of the limb industry and medical profession, conducted the necessary training of orthopedic surgeons and limb fitters, thereby making this technique of limb fitting available to all amputees, not only the veteran. Nationwide coverage in the prescribing and fitting of suction sockets was achieved by this method.

Through the Advisory Committee on Artificial Limbs of the National Research Council, ideas, suggestions and recommendations are made and are, in turn, referred to civilian and military organizations in order to pass on to all the benefits accruing from close cooperation and teamwork toward continued advancement in this field.

New courses are planned for the future to keep up with the knowledge and information collected during the past months. A course will soon be given at the Los Angeles campus of the University of California for the control of upper extremity prosthesis. The harnessing of an artificial arm has been for some time a major problem with limb fitters not particularly skilled in the making of a good workable prosthesis, and with the amputee who, in many instances, preferred not to wear an arm because of weight, odor, or limited use.

Located in the New York Office of the

Veterans Administration, at 252 Seventh Avenue, is the largest collection of prosthetic appliances, devices, orthopedic aids and many other appliances for the disabled. In connection with this is a library on similar subjects and of especial interest and value to research workers, staff and student body. Hospitals and institutions are making use of the Exhibit and Library, and it is gradually becoming a center for information for people in all corners of the world.

The V.A.'s contribution to this program does not differentiate between veteran and non-veteran when this type of information is desired. The Prosthetic Reference Exhibit is open to all for information or discussion of a general nature on prosthetic appliances. The exhibit serves a useful purpose in that it seeks to get at the basic facts of not only limb making but of limb wearing. Certain basic criteria and standards of performance have been set up. This material was gathered from research reports and test data. In this way, through an educational medium, limb wearers can get a general idea of what to expect or not expect from an artificial limb.

Educational courses conducted by the V.A. or with the V.A. cooperating are a very important part of the structure of general rehabilitation and contribute immeasurably to the welfare of disabled individuals. True, most of the training that is conducted is directly for veterans' welfare, but probably most important it is reaching greater scope by aiding all people through the V.A. program. It is interesting to note that through the development of appliances for the veteran all amputees are aided in no small measure and receive the benefits of thorough testing and evaluation of devices before they purchase an unknown or little tried appliance of dubious value.

The splendid cooperation of contractors in the program, educational institutions doing research in this field, and appliance manufacturers, has in no small way contributed to the progress and development of a progressive program which is leading to better devices for the disabled. Many organizations have worked these past few years and contributed their knowledge and skills to this project that now, after years of research and development, we find that the disabled of this nation will reap the harvest of a more useful and productive future. That such a program is in being, with a well trained and coordinated research organization in operation, will be of tremendous importance for the nation as a whole and its development of the potentially useful and productive men and women who are now *"handicapped"* because of a physical disability.

Through the Library, Exhibit and the information distributed to amputees, doctors and other interested individuals, the work being done in research and through scientific activity throughout the world may be studied and used for the benefit of all mankind.

The Physician's Part — A Discussion of Physical Factors, Treatment and the Selection and Fitting of an Appliance

The Upper Extremity

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During the four years of World War II, 17,000 servicemen lost their limbs as a result of war wounds and operational injuries. During the same period 120,000 civilians lost their limbs from accidental injuries and disease. Of both groups approximately a third were arm amputees. On the selection of proper prosthesis rested the future of most of these men.

Selection and procurement of prosthesis is only one step in an integrated program of rehabilitation that was developed for the military casualties. This program has now been made available for civilian cases. Such a program includes the psychological preparation of the patient, adequate surgery to provide a stump which will permit the patient to wear a satisfactory prosthesis without pain and with comfort and utility, the after care of the stump which will reduce the sensitiveness of the stump, the selection of the prosthesis and the training of the individual in the use of his prosthesis. We cannot discuss all the procedures required to provide the amputee with a complete and integrated program of rehabilitation. For this discussion we will concern ourselves only with the selection of prosthesis and training.

There are two primary requirements that a prosthesis must fulfill if it is to meet the needs of an arm amputee, that of dress and that of utility for the routine pursuits of life. To date there has been no one prosthetic device that has been able to satisfy these requirements.

There are many reasons why arm prostheses are the least satisfactory of all prosthetic appliances. It is easy to duplicate the function that has been lost in the lower

extremity since weight bearing and locomotion can be easily reproduced. In the upper extremity, however, the functions are so intricate and complex that they cannot be duplicated, they can only be imitated. Furthermore the one function which the amputee misses above all else is tactile sensation. This function has not yet been replaced by the inventive mechanical genius of the engineer. Then, again, compensation comes into play, so that the one armed person finds that even without prosthesis he can carry out his daily needs. Even the bilateral amputee may prefer to get along without prosthesis. Finally, the prosthesis is a poor substitute in providing the individual with normal appearance. Yet it is important that the physically handicapped person appear normal since he is faced by the severe prejudice of the public toward all the disabled. By camouflaging his defect he overcomes the truculent attitude of the man in the street, the employer and his fellow worker.

Is there any prosthesis that can meet all these demands of function and appearance? Obviously, no. What then are the devices that are available and which ones shall we select for our patients?

There is of course the dress arm. This is the most common type of appliance in use. In a survey of 9,000 arm amputations in Germany, 60 per cent preferred the arm for dress alone. Made of wood, leather, plastic, latex or felt, it can be made comparatively light and even in some cases sufficiently artistic to duplicate the natural appearance of the normal hand. However, the duplicity is quickly discovered. The lifelessness soon gives the wearer away so that the camouflage is rarely perfect. Nevertheless, it is satisfactory in providing a fairly normal appearance. Who shall wear them? Women, especially; men too, but the determination must be made on a survey of the individual, his attitudes, needs and personality.

For a woman 65 years of age with a forearm amputation following a compound fracture and osteomyelitis, it would be a serious mistake to provide her with a heavy mechanical arm. A simple dress arm with a spring thumb for simple acts of prehension is sufficient.

But if the patient desires an increased range of useful functions, the device should be able to accomplish at least a few simple hand functions. It is impossible to duplicate the permutations and combinations of hand and finger function. However, there are four simple functions which are important and can be duplicated mechanically. They are forceps action, pliers action, ring action and hook action. These functions can be obtained by the standard type of utility hook which is held closed by a heavy rubber band and opened by the action of a loop around the opposite shoulder which pulls on a lanyard attached to an outrigger on the hook. Closure of the hook is accomplished by the simple release of the pull on the lanyard, the hook closing by the action of the elastic band. While the amputee can exercise considerable ability in the handling of routine tasks the hook does not hold soft objects satisfactorily like a cigarette or a doughnut. The ability to control the exact amount of force exercised by the open hook has been called selective pressure and is a function that only a few amputees can obtain with the split utility hook. Furthermore, there is still the question of appearance. In the amputation center and in the hospital area while segregated with other amputees he is not exposed to public prejudice. When he returns home and finds himself one of a few in the community, dress and appearance then become a serious matter. In this case he can remove his hook and apply a dress hand or a mechanical hand.

The fitting of a prosthesis to an arm amputee differs from that of the leg amputee in that there is less opportunity for standardization. In the leg the prosthesis is fitted to the patient's stump. In the upper extremity the prosthesis is fitted to the patient's personality. His hopes, aspirations and background must be taken into consideration in deciding on the prosthesis. Certainly it would be a mistake to furnish a lawyer with a hook prosthesis to wave in the court room, or a bank teller to handle money across the teller's cage or a Fourth of July orator as he admonishes his audience with his prosthesis. We must search further for our selection.

Mechanical arms have had a popular vogue in this country and abroad in that the hand provides some of the fundamental hand functions and provides at the same time a fairly satisfactory resemblance to the natural hand sufficient to satisfy ordinary requirements for dress and appearance. However, there have been mechanical difficulties and weight problems that have limited their usefulness. When a limb of this sort requires a great deal of service in the factory or shop the amputee soon discards it.

Another method available to the amputee is cineplasty. The muscles that remain in the stump are canalized and attached to a

system of levers so that the flexors and extensors in the forearm and the biceps and triceps in the upper arm activate the artificial hand and arm. The great advantage of this method is the natural and physiological action, the simplicity of the mechanical device, the effortless control and the avoidance of straps, loops and harness to the opposite shoulder for below elbow arms. But the principle had its limitations in applying it to the needs of factory workers, farmers and laborers who required a prosthesis that could exercise considerable force. Although a few users of cineplastic apparatus have engaged in hard manual work it has generally been accepted for the use of the white collar class and those in light industrial pursuits.

The scope of cineplasty can now be extended to more varied and energetic physical demands through the development of a utility hook operated by cineplastic motors and interchangeable with a cineplastic hand. This has been accomplished by the development of an ingenious spring coupling which permits interchangeable action of the hand and hook by the cineplastic motors. Thus the cineplastic amputee can use his motors for work and his hand for appearance.

In addition to cineplasty other special methods are available to the amputee to meet his special needs. The Krukenburg operation is one of these methods. It consists in the splitting of the forearm into two fingers so that the approximation of the two digits provides prehension while the natural skin innervation permits normal tactile sensation. The method has been very popular in Germany and Russia. In the United States where considerable professional as well as public prejudice exists toward the appearance of the latter there has been a natural reluctance to undertake this measure. Yet it is a valuable procedure for the bilateral amputee since he requires no prosthesis. It is of especial value for the blind bilateral arm amputee.

Thus we see that there is no single idea or miracle prosthesis that will solve the problem of every amputee. It is a mistake therefore to adhere slavishly to one device alone. For the amputee there must be made available a large variety of devices and methods which can be fitted to meet the special needs of the patient. This is the function of the physician or surgeon who is concerned with the rehabilitation of the amputee.

It is not enough, however, to select the proper device for the patient. Unless he is given adequate training in its use he will discard it for a variety of reasons. The advantage of training was especially seen in the service amputation centers. At these stations intensive programs of physical conditioning and active training were undertaken in the use of the appliance for the routine pursuits of life.

In the rehabilitation of the arm amputee a five point program is required, the psychological preparation of the patient, the selection of adequate surgical methods which will give him a painless and satisfactory stump, the after care of stump, the selection of a device or special surgical procedure which will permit him to wear a prosthesis and, finally, the training of the amputee in the use of the prosthesis. By this means the civilian amputees can take their place in commercial and industrial life in competition with those who are not physically handicapped. Fortified with the special skills acquired by proper training, they face the future with possibilities unlimited.

The Lower Extremity

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From the rehabilitation point of view the lower extremity amputee can be said to arbitrarily fall into three categories:

1. The case that is examined, found to have a tough, durable, strong, well healed stump, attached to a healthy individual, regardless of age, with a personality drive and adaptability that easily surmounts his handicap. This type of case is prescribed and fitted with a suitable prosthesis by an expert limb fitter. The prosthesis fits well, the patient is comfortable in it. He receives three or four periods of gait instruction and demands that he be placed at work or finds work for himself. Many of the patients in this category only come in for replacement of an old worn-out leg and they are well seasoned, adjusted amputees. There is very little problem. Fortunately a large percentage of the number of amputees that we see are of this type. Our clinic and our facilities serve as a maintenance and servicing station to check on the stump, the prosthesis, and send the patient on his way. The average number of visits needed for category Number 1 are two to four visits. We may not see him for another year or two, when his prosthesis may have broken down or he may have had trouble with stump from

excessive usage; a slight adjustment or prescription for his over-worked stump is all that is needed.

2. Category Number 2 is that group of patients that require more time, an average of six to 12 visits. Either from persistent minor stump trouble, difficulty in obtaining a good fit, difficulty in learning to walk and balance, etc.

3. Category Number 3 consists of that group of amputees who require 12 or more visits. Some of them are seen month after month and at irregular intervals year after year. They are the really difficult rehabilitation problems.

If we were to look only at category Number 1, the easy group, there could be nothing but praise for the product of our service. Unfortunately, I would estimate that at least 30 to 40 percent of our lower extremity amputees fall into category 2 or 3 because of certain barriers to rehabilitation. These barriers are *not unsurmountable* and it is because they are the most interesting and provocative elements of the clinic that I would like to dwell on them briefly. Before I give a list of these barriers, I wish to create a generality and state that, all other things being equal, the greatest barrier to the patient is a physical, organic or inorganic condition, which makes attempts at even starting with a rehabilitation program impossible. Such conditions must be corrected first.

1. The general health of the patient. The patient must be placed in suitable condition so that he can stand up and walk. Obviously a patient with chronic cardiac decompensation, with uncontrolled diabetes mellitus, with uncontrolled peripheral vascular disease of the opposite leg, with advanced senility or with a major psychic disorder, etc., cannot be rehabilitated until the major primary condition is corrected first. Do not misunderstand me — many of them can be corrected and the patient will then be placed on the rehabilitation program for his amputation.

I will never forget the patient with rheumatic heart disease and cardiac decompensation who eventually became employed and self-sufficient with her artificial leg. The constructive commentary should be that excellent liaison should be maintained between the amputation clinic and the other medical specialties. One of the most frequent violations of this principle is the treatment of the amputation stump by the rehabilitation team and the complete negligence of careful supervision of the opposite leg in cases of peripheral vascular disease. These comments, of course, apply chiefly to the older age group.

2. The second greatest barrier is the poor amputation stump. It is impossible to start a rehabilitation program if the patient has a stump that is chronically painful, ulcerated, infected, and in general very unstable. Surgical revision of such a stump to change it from an unstable member to a physiological stable amputation stump will save time and money. Too often have I seen a prosthesis fitted to a stump which could never possibly tolerate a prosthesis. It should be remembered that the patient will have to live with his amputation the rest of his life and it is wise to give him the most durable type of stump possible, even if it means additional surgery, rather than to submit to chronic stump trouble. This particularly applies to the below knee stump.

3. The next greatest barrier to rehabilitation is the poorly fitted prosthesis, with particular reference to the fit of the socket and the general alignment. The poorly fitted prosthesis can cause stump trouble. In the above knee prosthesis it can cause furunculosis, abrasions, ulceration of skin at the pressure points, choking at end of stump, pain at pressure points, increase of phantom pain, moderate to severe psychological discouragement, complete disruption of the end of the stump, commonly called a "blow-out" and seen particularly with a poorly fitted suction socket, backaches, excessive strain on the normal leg, abnormal and bizarre limp, increased fatigueability, etc. A poorly fitted below knee prosthesis most commonly gives trouble with pressure spots and choking of the stump. We thus see that a poorly fitted prosthesis is a real and major barrier to rehabilitation. Yet we all know that this barrier is surmountable by the serious efforts of a skilled limb fitter, by expert fit analysis of an orthopaedic surgeon, by good and preferably personal liaison between the limb fitter and the amputation clinic. By constant, frequent supervision of the case as has been outlined by previous speakers and, above all, by the prompt correction of defects in fit.

4. Barrier Number 4. The last barrier is the patient himself. Fortunately, less than ½ of 1% of the patients will fall into this category. They represent that type of patient who has no will to become rehabilitated despite help from the psychiatrist. I am glad that I have seen them in less than ½ of 1% of patients, but believe me that they do

exist. With patience and understanding applied by the team, some of them succeed, some never will.

In addition to these four barriers, there are numerous other situations that are not real obstacles, but which are retarding factors:

1. Inadequate preparation of stump. Development of flexion contractions in either the AK or BK stump.
2. Delay in prescription of the prosthesis.
3. Delay in the manufacture and delivery of the prosthesis from the time of prescription.
4. Poor cooperation of the patient in attending the clinic, his gait training or his corrective exercises.
5. Delay in detecting and ordering corrections of minor defects in the prosthesis.
6. Delay in vocational placements — vocational placements should frequently overlap other places of the program. There is no reason why a patient in category No. 1 should not be given vocational placements while he is waiting to get new prosthesis. He will do all right. If he sees that his job is almost there he will be Grade A in category 1 as far as his morale is concerned.

Physical Therapy

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Physical medicine in the field of rehabilitation often operates as part of a complex, well coordinated team. The titles in this morning's program on the care of the amputee suggest the importance of teamwork in the care of a particular type of patient.

When physical methods are integrated in treatment they are utilized to accomplish certain specific end results. Their application is timed to the needs of the patient, and are administered meticulously by skilled personnel, if they are to be effective.

In the problem of amputations there are several points at which the physician specializing in Physical Medicine may be helpful. In certain instances he may assist the surgeon in determining the best site for the amputation; this will be of value in respect to attaining maximal function by the patient when he later will use his prosthesis.

Post-operatively physical methods are useful in shaping and otherwise preparing the stump for acceptance of the prosthesis. Full movement of the joints proximal to the prosthesis and muscle strength to propel the prosthesis must be maintained, and correction of any gross body imbalance accomplished. Later, when the prosthesis is applied, the patient will require critical training in the use of the prosthesis, gait training, and constant encouraging counsel. Gait training will be presented later in today's program by Miss Winter so I shall limit my remarks to the other problems mentioned.

The sites of amputation and the mechanical advantages and disadvantages of each have been thoroughly presented by Drs. Kessler and Lawrence. Where end-bearing stumps are provided, as with Syme or Kirk amputations, the patient may have fewer stump problems than with the friction produced when the various conical buckets are provided.

Proper fit of a prosthesis following a lower extremity amputation is more essential to its function than any subsequent advice or treatment. In upper extremities the selection of the prosthesis is relative to the total demands of the individual. Here the prosthesis is wrapped not only about the upper arm stump but about the amputee's total personality interests and desires.

Treatment of stumps post-operatively is the problem for the surgeon and for physical medicine. The stump must be properly shrunk and shaped. Edema must be removed by massage, and circulatory stimulation must be enhanced as by use of whirlpool baths or other circulatory stimulants. Any tendency to adhesion of scar should be treated by stretching and friction and traction massage. Tight muscles restricting joint motion will have to be stretched. Post-operatively the patient will be positioned carefully to avoid development of fixed contractures. In the lower extremity the greatest difficulty is the tendency to abduction and flexion positions. The patient and nurses will be encouraged to avoid pillow support to a flexed stump. Exercises will be given to maintain and develop full range of motion in all remaining joints of the amputated member. Where weakness in musculature exists, resistive strengthening exercises will be given by the usual methods, using manual, pulley weights or directly applied weighted gravity resistance.

The stump must be desensitized and toughened by subjection to mild traumatic handling and pounding. Any tendency to

infection will be part of the physical medical responsibility. Obnoxious hair growth may be removed by electrolysis as a precaution against irritation and infection. During this period, careful bandaging of the stump will be a regular procedure. Some patients can be taught to perform this bandaging correctly, though assistance is desirable. The technique should be such as to give firm elastic compression of the stump from its tip to the upper point of anchorage of the bandage, with pressure evenly distributed distally to proximally, never producing the effect of constriction of circulation at any point.

If the prosthesis is to be a lower extremity suction socket, a longer stump will probably be present and a cylindrical rather than a conical stump will be desired. In this respect, however, research has proven that stumps of all sizes and shapes can be adapted to the suction socket with adjusted fitting. Anatomical factors which in later gait training are extremely important have to be analyzed and, if found faulty, corrected before the prosthesis is fitted. Such factors are faulty body segmental alignment, presence of muscle weakness, tendency to contractures. If sinoplasty is the selected procedure, the patient will be trained to selectively use the sinoplastic muscle which is to motor the prosthesis.

In both upper and lower extremity amputations, abdominal muscle power should be evaluated and where deficient it should be strengthened.

Freedom and power of pelvic movement, mostly controlled by the abdomen, low back, gluteal and hamstring muscles, are essential to smooth prosthetic walking. Likewise, in upper extremity amputees, abdominal and back musculature serves to tie in coordination and balance in the use of the prosthesis. In upper arm amputees, shoulder girdle muscles will motivate the prosthesis at least until acceptable powered arms are generally utilized. The shoulder girdle muscles must be specially developed and the kinesthetic sense of the patient developed that he may be able to isolate these muscles and use them smoothly for the new function they are to assume.

If sinoplasties or Kruckenberg procedures are carried out, muscle training pre- and post-operatively with stress on the kinesthetic sense and application of the muscles to their new function is indicated.

To sum up, physical therapy has the responsibility of preparing the patient with a painless, freely mobile, well healed stump, covered with flexible skin, properly shaped and free from infection. The limb fitter will fit this stump with a well engineered and tailor-made prosthesis. Physical medicine will then take over the responsibility for the training of the patient in the use of his newly acquired appendage.

In the field of occupational therapy much is available to increase the smooth coordination of lower extremity amputees adapting them to occupational needs and exploring aptitudes. In the upper extremity cases, occupational therapists can do much to assist the patient in prehensile daily need training. The application of the functional training panel of common gadgets is especially useful to this end.

At this point I leave the further discussion of gait analysis and training to Miss Winter, a specialist in this field of therapy.

The Therapist's Part

Gait Instruction

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Introduction: The value of our gait instruction program at the Hospital for Special Surgery is, if anything, the adaptation and application of the ideal training to our particular situation. One has to bear in mind that the average age of the amputees to be trained is forty-seven. Other factors are that the greatest percentage are "out" patients, who are primarily coming for training in order to be rehabilitated to return to and hold their own form of employment or new employment, or to attend schools to train them for specific work.

These patients have to do a great deal of *homework* to help themselves. We are at the hospital to help them start correctly and teach them to progress, but not to be used as crutches. We have all sorts of interruptions, such as weather, home difficulties, traffic, and transportation (getting it and getting on and off vehicles). Consequently, we have to give them the greatest strength, efficiency, and security possible under these circumstances. We aim at the ideal, but naturally, there have, of necessity, to be exceptions made.

I will try to be brief and give you the main outline of our whole procedure in gait training and, obviously, the procedure for gait training, but because of time and in order

to eliminate repetition, I shall take AK amputees for the obvious reason that the greatest proportion of amputees who require training are the AK's, and I will confine myself to this group.

Procedure: (From patient first seen in Amputee Clinic who requires training to final visit and subsequent discharge.)

The physical therapist is present with the doctor when the patient's stump is examined and the patient's walk analyzed.

Short preliminary instructions and hints given by physical therapist:

1. Bandaging.
2. One exercise.
3. Instruction sheet with drawings of correct lying and sitting positions.
4. Appointment for training in gymnasium.

The patient then comes for preparation for gait training. The first time an amputee comes who is to have preparation for gait training, he has a card filled out with data for the use of the physical therapist and a record of his attendance.

Procedure for Preparation for Prosthesis:

1. Crutch walking (rarely necessary).
2. Checked on or taught bandaging and care of the stump.
3. Exercises for stump to:
   a. Strengthen.
   b. Stretch contracture.

(Example: To develop muscle power — these high resistive exercises are begun on plynth, with manual resistance; then later done on pulleys.)

4. Hopping.
5. General mat exercises adapted to the age and need of the individual.

As soon as possible, the patient returns to the Amputee Clinic to have the stump examined and to get the order from the doctor to go ahead with obtaining the prosthesis. (Usually the patient continues in the gymnasium until he gets his prosthesis.)

Gait Training: The patient is seen again in the clinic by the physical therapist, and a few preliminary instructions are given (to be done at home until seen again in the gymnasium). Data on fit of the prosthesis, maker, etc., is entered on patient's card. Gait analysis is included in the patient's history for the benefit of the physical therapist. Patient then begins his actual training:

Supported:

1. Crutch walking — even steps stressed.
2. Three simple balance exercises given.
3. Standing between parallel bars in front of mirror.
4. Walking between parallel bars:
   a. Walking sideways between parallel bars.
   b. Walking backwards between parallel bars.
   c. Walking over step between parallel bars.
5. Stairs with and without crutches.
6. Walking ramp with crutches.
7. Walking up and down curb with crutches.

Homework:

1. Even but limited crutch walking: (If patient becomes fatigued, limp becomes apparent.)
2. Balance exercises between two chairs, table and chair, chair and bed, etc.

Without Support:

1. Balance exercises.
2. Walking between parallel bars:
   a. Walking beside parallel bars.
   b. Walking over step between parallel bars.
   c. Walking up step between parallel bars.
3. Walking short distances in gymnasium.
4. Walking with cross over steps and in a circle (Suction socket type prosthesis).
5. Walking up and down gymnasium.
6. Sitting on various heights of chairs and stools.
7. Getting up and down without holding on.
8. Walking curb.
9. Walking ramp.
10. Lying down on mat and getting up without support or help.

Homework:

1. Balance exercises.
2. Walking to and fro from pieces of furniture at home and in narrow hallways, etc.

When patient can walk up and down and around the gymnasium well, he or she is given a cane which is to be used on the prosthetic side. This is far more difficult than on the other side, but it is used only for security and some balance, but is little or no support, so consequently, is not relied upon too much. This makes for a better distribution of weight over prosthesis than on the other side. Because our patients have to cope with traffic and get to and from the hospital, we have to let them use a cane, but

they are told not to use it except when in real difficulties on the correct side; but as soon as the pavement is even and there is no traffic, they are to change the cane back to the prosthetic side.

Homework: Walk with best possible gait (without or merely carrying cane) for one-half block each day, trying to increase at least one-half block until good gait is maintained for at least three blocks, which means that the patient is not too fatigued and could always manage another block or so.

As soon as the amputee walks well in the gymnasium without a cane and is able to walk the three or more blocks, he returns to the Amputee Clinic to be seen, checked and discharged, and given a reminder to continue balance exercises and to check on his gait from time to time. If, during the training period, there are difficulties with the prosthesis which are interfering with good gait or establishing bad walking habits, the patient is returned to the clinic for check-up and suggested adjustments, when necessary, for the prosthesis. During the training period, the patient returns to clinic when and if medical attention is required.

The problem of gait training for the new amputee is simpler with which to cope than that of the amputee with long-established bad habits in gait. It is far easier to learn than to "unlearn."

Because of the great individual difficulties and differences, we have found that the time required to obtain a *good gait* varies a great deal with each individual. Therefore, the following is a very *general* statement of the necessary time for completion of the gait training course:

Average AK's....	14	gait	training	periods
Bilateral AK's....	18	"	"	"
Average BK's	6	"	"	"
Bilateral BK's....	10	"	"	"
Combined AK & BK	12	"	"	"
Hemi-pelvic	12	"	"	"
Disarticulation ..	10	"	"	"

The latter two take more time because of muscle weakness and use of hiking muscles. Balance and security are easier to get.

Summary: In training of the older age group (which is our biggest):

1. Fear of falling is such that a cane is required. We know that the ski jumper who is to enter a ski-jumping competition, must have jumped before he was eighteen or nineteen. We, therefore, have to omit some of the training in falling and recovery, etc. There is too great a danger of injury, or of delay because the prosthesis has been damaged. We have to hope that if and when an older amputee falls, he will not have time to stiffen through fear. Many more have fallen *without* bad results than *with*.
2. With lack of coordination and good balance (not entirely applicable to older aged) a cane is a necessity over rough ground, uneven pavements, and crowded sidewalks, etc.
3. Because of the necessity of getting to the hospital and back home, gait has sometimes to be temporarily sacrificed, but security is established and some strength and balance, even if it is not the ideal way of keeping from poor gait habits. However, these poor gait habits are not so long established that they cannot be remedied as the amputee progresses.

Gait training for younger age groups (including those who have suction socket prosthesis and children):

These are usually given more skills and more vigorous and different emphasis is put on the training. Usually no cane is needed. Children can be taught, if they have average coordination, to be acrobats. Therefore, extra skills can be taught, and interest and ability in different types of work can be furthered.

Example: (Girl of fifteen kneeling —)

Conclusion: Finally, it comes down to the fact that the amputee who has that urge and will to do needs only a fair start, good fit and comfort, and some helpful suggestions to become, according to his age and coordination, a fair, good or excellent walker.

We are extremely fortunate in having but a few who are not cooperative and who have not the will to do.

The Limb Maker's Part — A Discussion of Material, Workmanship and Operation

H. B. HANGER
J. E. Hanger, Inc., New York City

I want to say first of all how happy I am that the limb industry has been given the opportunity of taking part in your annual meeting. The consciousness of the teamwork necessary to rehabilitate the amputees with whom you come in contact is borne out by this invitation which we so willingly accepted.

In this short time it would be impossible to give you a well-rounded technical discussion as to how limbs are made and I believe that it would be much more in keeping

to try and present what our position means in the team of you, the rehabilitation worker, the doctor, the prosthetic appliance manufacturer and lastly, the most important member of all, the patient.

First, we might talk briefly regarding the material used in the construction of artificial limbs. Probably the most widely used material today is willow wood. It has so many favorable working characteristics from the standpoint of the entire limb industry that it is hard to find a superior material. I must hasten to add, however, that as most of you undoubtedly know there are several other materials which are used today in the manufacture of limbs which are fully adequate and, when handled by a competent workman, result in an appliance which gives service and satisfaction equal to that of any other material. There are limbs made of aluminum alloy, the popularity of which has increased tremendously in this country over the past twenty years. There are limbs made of vulcanized fibre and plastic, all of which have their place in our industry. There is not now and probably never will be any one material and method of construction of which it can be said, "This is the last word and the only material and method to be used." You will find a good many prosthetic manufacturers who, within their own organization, manufacture several different types of limbs for the same amputation and I believe that the outstanding criteria of material and method as far as we all are concerned is, "Has the patient been competently handled so that the prosthesis will aid in his full rehabilitation."

Our industry has taken the most important step ever made since the birth of our trade in assuring that eventually all amputees will be in the hands of qualified personnel. Dr. Edward Compere of Chicago, a name with which I am sure most of you are familiar, stated in a speech to our recent gathering of limb and orthopedic appliance manufacturers at our national meeting in Chicago that he considered this step as important to our profession as the forming of the American Academy of Orthopedic Surgeons was to their profession. I am speaking of the formation of the American Board for Certification of the Prosthetic and Orthopedic Appliance Industry. It might be hard to understand how a profession as old as ours could still be suffering from growing pains. On the other hand it might be said that any such group not suffering occasional twinges is a possible candidate for the Home for Aged and Infirm, if not a fairly good prospect for the nearest mortuary. We had a chronic pain which for many years we suffered with the thought, "Oh, well, it will cure itself after a while," but it never did. We finally reached the point where we realized that if we were to live a more active and useful life that he would have to do some self-doctoring, and in 1946 the Orthopedic Appliance and Limb Manufacturers Association decided to take this step. It took two full years of hard work and preparation before, in August of 1948, the first Board of Certification was formed, consisting of four outstanding members of our industry and three nationally known orthopedic surgeons. The aim of this board was eventually to eliminate all incompetency within our field by setting standards of the highest quality, to which all of us who wished to be certified and remain certified would have to adhere. A good deal more work is ahead of us to keep certification a living and meaningful thing and that work is being continued. At the last very recent meeting of the Certification Board regulations were tightened up even more and, beginning next year, all new applicants will be required to take an examination.

Two types of schools are about to be set up. One of the vocational type and taking two years to graduate; the other to be called the degree school, which will take four years. Mr. Glenn Jackson, our National Association Executive Director, only last Friday went to Pittsburgh to confer with Dr. George J. Young of the Mellon Institute, who is chairman of the Joint American Board for Certification and Orthopedic Appliance and Limb Manufacturers Association Educational Committee, regarding laying plans for putting the vocational school on the rails very soon. We have just increased the annual renewal rate for certified firms in order to make it possible that special investigations be conducted where conditions warrant to withdraw certification. In this respect our licensing plans differ from that of most other professional groups in that certification when granted is for a period of one year and is renewed only when there is no claim of incompetence or unethical practice against the firm or fitter. Many of the organizations who are familiar with our plans for certification are now becoming more and more conscious of what this movement means. To cite only one example, the Veterans Administration when putting out its yearly request for bids on contracts has asked every manu-

facturer who wished to renew their business for the current fiscal year, "Are you certified?" Naturally, with the passage of time certification will become more and more prominent and it is our sincere hope that it will not be in the too far distant future that no one will be able to manufacture or supply artificial limbs to individuals needing them unless he has a required background to handle the work. I am sure that all of you readily understand what such a goal means, not only to the amputees who must come to you for help but to all persons who have suffered the loss of one or more limbs.

I think that my last two years in the Army brought home to me more forcibly than anything else the value of teamwork. All of the surgeons with whom I worked were equally conscious of the value to be derived from an integrated program. They did not merely amputate a limb to do a clean surgical job, but they considered carefully the point of election, if such a choice were available, with the idea that they were aiming for the best functional result so that the amputee would derive the maximum use from the prosthesis which was to be made. The physiotherapists and nurses took such excellent post-operative care of the patient that when his time came to go to the prosthetic shop and be measured for an artificial limb, we had a patient in the best possible physical condition with whom to work. He came to us with no flexion contracture, his muscles were well toned and any sort of malfunction of the amputated member had been given the corrective attention needed so that the amputee would not have these problems to surmount at the same time he was trying to become adjusted to the artificial limb. This preparation of the men was something which all the personnel of the prosthetic shop recognized and appreciated. After the limb was fitted and completed the patient received immediate supervised instruction on how the limb should be used and from that point on every patient in the hospital was seen at least once a week by his surgeon and by me, so that if any difficulties were evolving in his use of the limb it could be evaluated from both the medical and the prosthetic standpoint. This combination of the two viewpoints being co-ordinated is invaluable. From time to time, problems would arise of a purely physiological nature about which I, as the prosthetist, was certainly not competent to render a decision. In a like manner, very often the difficulty could be solved by an adjustment to the prosthesis, the suggestions for which I was more qualified to give. The main point I want to make is that regardless of the problems encountered we worked them out together with a mutual understanding of each other's part in the program as a whole, the aim of which was to return the patient to civilian life, hindered as little as possible by his injury. The Veterans Administration then took over very much the same role which you play with the civilian amputees that come to you for help. However, I think that you have an even better position in that you enter the picture much sooner. I believe that your position is so important that you cannot enter too soon into the job of co-ordinating everyone's effort to return the amputee to a self-sufficient and useful life. The clinics with which I have been associated in this area are striving conscientiously and hard to produce a continuing program in which we can all work with mutual respect for the other's part. Naturally, some are succeeding better than others. However, the basic goal is one which cannot help but benefit the amputee in the long run.

Naturally, our part in doing this work is to supply the patient with a well made and well fitted prosthesis and I hope that we are fulfilling that phase. The fitting of a limb is our business, our profession, and we must send our amputees to the clinic for evaluation with a limb which we feel is satisfactory. We not only cannot expect all the members of the medical profession who are engaged and will become engaged in clinic work to have the same detailed knowledge that we must have in order to carry on the job to which we give all our time. It would be unreasonable to expect this of them. However, I would like to add this: you cannot imagine how grateful we in the industry are when we have the opportunity of working with a doctor who has an understanding of the theory and principles of limb fitting. To get back to our responsibility, if we are to be a real member of the rehabilitation team it is our job to present to the clinic a patient who requires little or no analysis on the part of the doctor, and you can believe me when I tell you that nothing pleases a doctor more than to have a patient come in for a check-up on his new limb and find that he can make little or no recommendations for improvement. Particularly in some parts of the country where many miles have to be traveled by the amputee and limb fitter, I know it is difficult to count on having the representative of the limb manufacturer

present during all evaluations; however, I can only emphasize that the more often we are all able to get together, the more often will we be able to stamp, "Successfully closed," on the files of the people we are trying to help. Where distances are too great I would urge that an effort be made to gather problem cases for perhaps one day a month at a time which is agreeable to everyone concerned, and I am sure that the conscientious limb fitter will welcome the opportunity of a consultation on trouble cases, from which a course of action can be derived that will render, if not the whole solution, a great part of it, and a tremendous stride will have been made. I have seen solutions forthcoming on long-drawn-out problems from conferences of this type which would never have been solved by months or years of writing letters and indipendent analysis.

I hope that I have not been too general in the time that has been given me. However, I felt that the most single important thing that I could try and bring home to all of you is our industry's sincere desire to see this teamwork grow and extend to all parts of our country. We want to do our job, which is supplying the amputee with a well made appliance and to work with the doctors and all of you of the National Rehabilitation Association. The road toward our goal must be smoothed by the concerted effort of us all, and I know that I speak for the entire industry when I say that we are proud to be a member of the team.

Research

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Research in prosthetic and sensory aids includes limbs, braces, hearing aids, aids to the blind, orthopedic shoes, crutches, wheelchairs, and such devices. Thus it literally helps each body which has been orthopedically or sensorily handicapped. While this session is primarily concerned with amputees and artificial limbs, many of these remarks will apply also to devices for other handicaps in the field of your Association.

Although our Service is primarily charged with supplying and improving such aids for veterans, Public Law 729 of the 80th Congress specifically provides that the results of investigations in this field may be made available to the general public. Veterans are roughly estimated to be only 5% of the total amputee population. Reports and papers are issued from time to time. The patient clauses in development contracts are designed to promote manufacture of improved devices at low cost and high quality by responsible manufacturers without payment of royalty.

The Government has sponsored research in some areas of our field since 1944. At different stages the Office of Scientific Research and Development, the Army, the Navy, the Air Force, and the Veterans Administration have participated in varying degrees. The present Artificial Limb Program coordinated by the Advisory Committee on Artificial Limbs will be described in some detail as an example of this cooperative effort. The program is a combination of governmental, quasi-governmental, and private contractual research, development, and testing in widely scattered locations.

The Army operates the Army Prosthetics Research Laboratory at Forest Glen, Maryland. The APRL specializes primarily in development of terminal devices for artificial arms such as hooks, hands, and cosmetic plastic gloves. One interesting by-product, still in the experimental stage but showing great promise, is a nylon coating for leather to prevent absorption of perspiration and development of odor, yet permit reasonably rapid transmission of vapor.

The Navy, at Oakland Naval Hospital. is developing a wide variety of devices. Among these are a rubber ankle, a soft socket for below-knee prostheses, a simple cadence control helping an above-knee amputee to walk more smoothly at varying speeds, a knee lock for hip disarticulation cases, and a cineplastic arm.

The Air Force some time ago helped two of its scientists to work on a hydraulic knee to protect above-knee amputees from stumbling and to assist them to walk more smoothly. Currently 17 models are being made for service test. The Air Force permits the inventors to attend conferences and tests.

The Veterans Administration handles all medical research through the Research and Education Service. Our special field, while coordinated with other work through the Research and Education Service, is a particular responsibility of the Prosthetic and Sensory Aids Service. The Veterans Administration operates its own laboratory, provides money for non-profit contracts with other organizations, and keeps in touch with work done elsewhere.

Fundamental research on locomotion and on pain in amputation stumps is carried out at the Berkeley campus of the University of California, with cooperation of the Medical School at San Francisco. At the Los Angeles campus there is fundamental research on arm and hand motions and on harnessing of artificial arms, plus a new program of fitting selected cases with research devices to develop a method for prescribing prostheses for the upper extremity to suit the needs of the individual case.

Three industrial laboratories are currently under contract. Northrop Aircraft of Hawthorne, California, since 1945 has developed several artificial arms, two of which are already commercially available through the industry, and has explored a number of other problems. Catranis, Inc., of Syracuse, N. Y., since 1946 has intensively studied lower extremity prostheses and has developed amputee models of many ankles, hydraulic and mechanical knee brakes, and ingenious control systems. The *control* of a knee brake, incidentally, seems to be the root of the problem, with the literature cluttered with control methods which solve selected problems but fail in other critical services. International Business Machines Corporation has worked since 1946, partly with its own funds and partly under Government sponsorship, on electrically operated artificial arms. So far only four test models exist. Again the control system offers the main difficulty, which must be solved if smooth operation is to be attained. Surprisingly small motors, clutches, and batteries have been successfully built.

New York University is responsible for the testing and evaluation of the devices developed elsewhere. Shakedown, service, and field tests on increasing numbers of copies are conducted under a rather elaborate Transition Procedure which has been successfully used for the last two years. Amputee reactions, mechanical durability, and actual performance of the functions claimed are checked by a group including psychologists, therapists, engineers, and "professional" amputee testers and trainers. The limb fitters, the photographer, the surgeon, and the extensive physical facilities of the V.A. Prosthetic Testing and Development Laboratory are used on a cooperative basis.

The National Academy of Sciences, through the Advisory Committee on Artificial Limbs of the National Research Council acts as an architect for the Program, coordinating these widespread activities, and providing flexibility in securing test models, conducting conferences, or bringing in special skills. The members of the ACAL and its subsidiary technical committees for the lower and upper extremities, including representatives of the limb industry, meet semi-annually. These conferences exchange information, evaluate progress, and determine devices for advancement in the Transition Procedure. In addition, special subcommittees meet more frequently to discuss specific problems, usually highly technical in nature. Indeed, a special vocabulary is rapidly developing among the few dozen people most involved.

The Veterans Administration, in addition to the above contracts, operates its own Prosthetic Testing and Development Laboratory in New York. Its major function in the cooperative Artificial Limb Program is to assist NYU with testing procedures. In addition, the Laboratory tests and evaluates devices submitted by commercial limb and brace makers and private inventors and investigates breakages in the field. Data are collected and coordinated from clinical evaluations conducted by the 30 Orthopedic and Prosthetic Appliance Clinic Teams or by selected hospital brace shops. Long-term investigations of location of knee joints and of various theories of socket construction are under way. Application of the APRL nylon-coated leather to prevent staining of clothing over shoulder harnesses was recently tested. Accelerated testing machines are used in checking commercial devices and new developments. An excellent machine shop with precision tools makes experimental devices and testing instruments.

BLIND

A few words should be devoted to other fields of interest to this Association. Work for the blind and partially sighted, begun by the OSRD, is now being continued quietly. The University of Michigan is developing and testing methods for teaching the blind to use the RCA A-2 reading device. The particular experimental model is admittedly unsatisfactory. The best teaching methods, however, should be readily adapted to any similar but improved reader which may later be developed from the design criteria which the University is compiling.

Similarly, Haverford College is testing obstacle detectors such as that designed by the Army Signal Corps, looking toward selecting features to be improved in another model.

The University of Rochester is compiling

a final report on a survey of magnifiers for the partially sighted. You will recall that a person with acuity of 20/200 or worse is considered legally blind. Preliminary results indicated that some patients with acuities as low as 2/200 could be aided to read newsprint satisfactorily, and *all* patients with 9/200 or better were so helped. These results seemed most encouraging. The final report will include suggested design features of a composite portable direct-view magnifier, for possible later development. The projection type appeared best for cases where portability is not required.

BRACES

Massachusetts General Hospital is analyzing back braces. Early tests indicate failure of certain brace designs to immobilize the spine as effectively as is usually desired. The Prosthetic Testing and Development Laboratory is compiling a final report on field tests of an aluminum tubular brace. Rapid wear of bearings, breakage of springs, and difficulty in fitting and adjusting the brace have been important complaints in early reports. The Sarah Mellon Scaife Foundation Fellowship at Mellon Institute is generously supporting private development and educational work on braces.

HEARING AIDS

In the field of hearing, the Central Institute for the Deaf develops testing and fitting techniques, incidentally securing certain data on commercial hearing aids. The development of new aids, however, is left to the highly competitive commercial industry. Its supply of trained men and ability to draw on much larger stores of fundamental data, such as acoustics, electronics, and manufacturing methods, contrast sharply with men and data available in other industries such as limb or brace making.

DEVICES

Several devices in the Artificial Limb Program have already been released or are in advanced stages of testing. The original Northrop BE and AE, Hosmer AE, and Fitch AE arms were released in 1947.

The suction socket method for AK leg suspension, patented in the Civil War and developed by the ACAL since 1946, was released for routine use in January, 1950. As Mr. Lipton said, hundreds of surgeons and limb fitters, most of whom serve nonveterans, have been trained in the prescription and construction of the suction socket, in a fine example to the teamwork which this Conference emphasizes. The state of the art and the improbability of a "revolutionary" improvement are exemplified by the efforts required to make practical a Civil War invention and to train surgeons in prescription and follow-up of a discovery made before Pasteur's germ theory!

The APRL voluntary-closing hook was accepted by the ACAL in May, 1950. A nation-wide clinical evaluation of 400 hooks of the latest production-engineered model is now being conducted through the Orthopedic and Prosthetic Appliance Clinic Teams to assure reliability and high amputee acceptance before release for routine use.

The APRL voluntary-closing hand and cosmetic glove are being given a nation-wide field test under the direction of NYU through the commercial industry and the Clinic Teams. Service test reports on 12 cases were unanimously favorable on both function and appearance. If the hook and hand continue to be as favorably received as now appears likely, they should greatly increase the willingness of the upper extremity amputee to wear an artificial arm for both work and social life. Northrop also has amputee models of a two-spring hook, similar in operation to the rubber band type, and an improved elbow with 11 locking positions.

The limb industry at its recent national convention devoted two sessions to arm fitting and harnessing and part of a third to arm research and development. Mr. Lipton has told you of a seminar at UCLA on arm fitting and harnessing and a series of arm-fitting schools in other localities. The cooperation of surgeons, therapists, fitters, engineers, and manufacturers should, in perhaps the next two years, go far to make the arm amputee a two-handed individual. Too often today, he is a person with an artificial arm in the closet at home who has reluctantly become "adjusted" to using one hand with incidental aid from his stump, his body, and his teeth. While we all know that great dexterity can be developed by such substitutions, will it not be better physically and psychologically to eliminate awkward body motions and the empty sleeve?

With the help and patient cooperation from all groups, especially from the amputees who wear test devices and voluntarily risk frustrating experiences with early models, we are making real progress. Many improvements have been made by the industry itself, with the Government merely providing an encouraging atmosphere. We already see

distinct changes from practices common in World War II. There are better devices for upper and lower extremities, men better trained to fit them, continued and increasing cooperation of surgeons and therapists in constructing and developing the stump and the use of the device, and better psychological and vocational guidance of the patient. We shall see further marked improvement on all these fronts for veteran and nonveteran alike in the next few years. Personalities, professional prerogatives and jealousies, budgetary problems, and educational hurdles all seem unimportant in the grander view of the improvements we now can make experimentally and of the need for disseminating them widely.

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Vocational Adjustment

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Although the amputee tends to look upon his vocational adjustment as different from those of other disabled persons, the methods and techniques of the Vocational Counselor working with him are similar to the methods and techniques used with other disabled persons. For the satisfactory vocational adjustment of amputees, it is necessary to place greater emphasis upon capacity for certain physical activities and upon the effects of environmental conditions of an occupation than may be necessary for other persons, but these same activities and conditions must be considered for all. Thus, as I see it, differences which do exist are those of degree rather than of kind.

The nature of adjustments in all areas is dependent on the total personality of the individual. His behavior is the result of the many motivations and their interactions which make him the individual he is. The amputee, as with all other people, does not think or act in a specific manner in any given situation *only* because of the pressures of that situation or of a particular physical condition such as the loss of a limb. His behavior in the situation will be determined by his combined mental, physical and emotional make-up which is based on the sum of all his past experiences and feelings and his concept of himself as an individual in relation to his environment. Thus, in the rehabilitation of the amputee, we cannot lose sight of the whole individual at any time even though efforts at any particular moment may be directed toward a specific goal, such as the development of functional capacity.

Efforts to fill the gaps in our knowledge of the effects of physical handicap on personality are being made and an increasing amount of research is being carried on in this area but there still remains a vast amount to be learned. Meanwhile, the awareness of the individual nature of rehabilitation should caution us against expecting to find any one pattern of adjustment, or maladjustment, which may be described as characteristic of amputees as a group. I suspect that the amputee's adjustments in all areas are dependent mainly upon his personality structure as it existed prior to amputation and that if we were able to evaluate completely the individual at that time, we might be able to predict generally the types of adjustment mechanisms he will display after amputation.

There is no simple method of assuring that an amputee will be satisfactorily engaged in a particular occupational field any more than there is such a panacea for all individuals. An example appropriate to this thought and the considerations I have mentioned is the case of John, a young man who lost his major arm as the result of an accident. In the woodworking activity of a hospital Occupational Therapy Shop, he demonstrated an unusually high degree of facility with his prosthesis and operated many of the shop machines with a proficiency that equalled and even surpassed some of the patients who had full use of their natural arms.

When the time came for his discharge, John was referred to an employment worker for placement in a job. Fortunately, through the special efforts of the placement worker, just the right job was forthcoming with a sympathetic employer who operated a factory for the manufacturing of wooden cabinets. The machines to be used were the same John had been operating in the shop and he was hired after a short demonstration of his ability.

Now here, apparently, is an example of successful rehabilitation in which maximum physical restoration was attained, the client had been helped to develop a vocational skill and had been placed in a job which made

use of that skill. Yet, on the third day after John started working, the employer called the placement worker to advise him that John had quit with no reason other than a very general statement that he didn't care for the job.

When John was contacted, the placement worker realized that he was confused about his vocational future and that there were other than regular placement problems involved, and so, referred John to a Vocational Counselor in a rehabilitation center.

As John gained confidence in the Counselor and felt freer to express himself, it was learned that he came from a home in which his father controlled rigidly the activities of the family group. In this authoritarian atmosphere little responsibility was permitted John and he was constantly being reminded that his opinions were not as valuable as those of his "elders." He had little faith in his capacity for successful achievement, and looked to others for direction lest he be criticized for his actions and opinions. He felt the loss of his arm had deprived him of his chances for ever being accepted on an equal basis with other people.

All of these factors and others had operated to make John feel that he couldn't continue in his new job. Holding a job represented more of a responsibility than he had ever had before and he was afraid he couldn't handle it satisfactorily. The other workers were older men with long experience and he couldn't conceive of himself as being accepted as a co-worker either on an occupational or social basis. He felt the only reason he was hired was that the employer and workers were sorry for him. Finally, John felt factory work was not as satisfactory as an office position with its "white collar" status and the prestige he felt this status afforded.

Through the efforts of the rehabilitation "team," John was assisted in working out many of his problems. Interestingly enough, when he learned the real characteristics and qualifications of "white collar" occupations, he chose finally to return to the woodworking field but this time was able to continue on the job with greater satisfaction.

This story demonstrates the importance of the evaluation of the client's total personality in the rehabilitation process and how it affects satisfactory vocational adjustment. With the development of the "team" approach to rehabilitation and the concomitant integration of services, we have acknowledged the importance of this concept. The efficacy of the rehabilitation process is dependent on the coordinated efforts of all of the team members during the entire process. No one person is responsible for the successful total rehabilitation of the amputee and the "team" operates by a pooling of its resources and opinion at all times. The interest and activity of the "team" members does not cease at any one point in the process, and consideration is given not only to the amputation but to any other physical or mental conditions which may constitute a handicap in any area of adjustment.

The vocational worker's role may be defined as: first, to aid in the "team's" evaluation of the amputee's total personality by obtaining as full a picture as possible of the client's educational and occupational experiences and his interests and aspirations; secondly, to help the amputee, through counseling, become aware of the importance of all factors of his personality in the selection of vocational objectives; thirdly, to provide information about occupations and preparation for them in terms of job characteristics, socio-economic considerations and as sources of emotional satisfactions; fourthly, when the client has selected his objective, to assist the amputee in resolving problems incident to training; and finally, to help him locate and enter employment in the occupation for which he has trained.

These functions are not accomplished without the aid of the other members, of course. For example, the social worker may learn facts of the client's background which were not learned by the vocational worker; the amputee will undoubtedly learn much information about jobs and working conditions while he is active in the Occupational Therapy Shop; an awareness of his physical capacities and limitations and their importance will certainly be gained during his contacts with the doctors, etc.

In order to fulfill his role and offer realistic assistance to the amputee in the attainment of satisfactory vocational adjustment, the vocational worker must gather as much information as possible about the client's behavior, feelings, aspirations, and functioning capacities. Obviously, he cannot obtain all this information through his own resources since he cannot possess all the skills and knowledge of the doctors, medical therapists, psychiatrist, psychologist, and social worker. He must be sufficiently well trained, however, to understand and utilize the information obtained from these specialists and to integrate it with his own special knowl-

edge of vocational considerations. As with all the team members, his approach should be a positive one — that of learning in what areas and in what manner the individual amputee functions with the greatest facility and the greatest satisfaction. Although awareness of limitations (the negative aspects) are important so that the amputee will not find himself in a situation where the demands are greater than his capacity, emphasis is placed on abilities rather than disabilities.

The initial aims of the vocational worker are to have the amputee become aware of the nature and importance of all factors (personal and situational) to be considered in vocational objectives and the subsequent selection of a suitable objective by the amputee. This is the basis for the amputee's future satisfactory vocational adjustment. The worker utilizes all the techniques of vocational guidance in accomplishing these aims but the most important factor is the relationship developed between the amputee and the vocational worker during the rehabilitation process. The amputee must feel that he has the important role in his rehabilitation, that he has the right and capacity for making his own decisions concerning his future, that these decisions and opinions are respected and that the worker will not attempt to impose his own opinions on the client. This demands from the worker a warm, sympathetic attitude and a high degree of sensitivity to the attitudes and feelings expressed and displayed by the amputee.

A question commonly asked of vocational workers by clients and the general public is, "What occupations are most suitable for amputees?" At the risk of being considered facetious, I would answer with another question, "What occupations are most suitable for people?" So-called "normal" people function in ways different from each other and have various needs to be satisfied. Only an appraisal of the individual and an evaluation of the demands of an occupation will indicate whether a particular person, amputee or otherwise, can perform satisfactorily in the occupation.

Are there special considerations involved in the vocational adjustment of an amputee which are peculiar to him as an amputee? In a limited sense, yes. Some of the factors which must be carefully considered relate to physical capacity and the degree of functioning with a prosthesis. Physical activities such as walking, standing, balancing, climbing, lifting, carrying, handling, and others are usually affected by amputation of a limb. It is important, then, to determine what degree of proficiency has been attained in these activities by the amputee. There is no general rule by which we may exclude consideration of a particular occupation because it involves those activities to a high degree.

Thus, one might assume that loss of a hand would preclude work involving coordination of two hands in manipulating small, fine materials. Yet, in the rehabilitation program of the Veterans Administration, there is the example of an arm amputee who has been trained successfully as a watchmaker. True, he doesn't use his prosthesis as he might his natural arm, but the high degree of facility in the use of the prosthesis and the excellent dexterity demonstrated with his other hand compensate sufficiently to permit satisfactory performance of the occupational tasks.

Similarly, we would expect that an individual with an above-knee amputation would probably be limited in the amount of walking and standing he could perform. I have spoken with a bilateral leg amputee (one below- and one above-knee amputation) who obtained a job requiring a great deal of standing and walking and who, over a period of six months, was on the job 14 or 15 hours a day. When questioned about his difficulty in performing under such circumstances, he said he did everything and seemed to feel no more tired than his associate, who had full use of his natural legs.

These examples are not meant to imply that there is no loss of function in these physical activities as the result of amputation, but I wish to draw attention, again, to the importance of appraising the capacities carefully with each individual. It must be emphasized that even in individuals with identical amputations, there may be a wide variation in capabilities.

In addition to physical activities, consideration for an amputee is given to certain situational factors of an occupation. Heat and humidity cause discomfort to many prosthesis wearers because of the resulting chafing and irritation of the stump; a slippery floor or one littered with many obstacles may constitute a high degree of hazard for a leg amputee; mechanical hazards must be carefully evaluated in terms of the amputee's capabilities since they may be the cause of further physical injury. Sometimes, a situation which constitutes a hazard for the non-amputee is not so considered by the amputee. I am reminded of the fami-

liar example of the arm amputee who was employed as a power press operator. When commended for his skill, he explained it in terms of his lack of fear about injury from the machine. If his metal hook were caught in the machine, he would feel no pain and if it were damaged, it could be replaced easily.

The amputee's attitude toward his disability and to the prosthesis is an important factor in overcoming the physical handicaps imposed by amputation. How he adjusts to the disability and prosthesis is also determinative in large measure of his success in meeting working conditions and requirements. Most difficult to assess are the emotional factors, but they are bases for the total adjustment of the amputee to life situations. The "phantom limb" phenomenon and its relation to the "body image" concept is as yet not fully comprehended and their importance in modifying the self-concept of the amputee cannot be determined without further research. Yet, the role the individual amputee conceives as his in relation to his environment and the motivations underlying his behavior control the nature of his adjustment in all areas and will affect the success and satisfaction obtained from working in an occupation. This was demonstrated in the story of John, of whom I spoke earlier.

Thus, we find that the vocational adjustment of the amputee is not solely dependent on the physical factor of loss of limb or limbs by amputation. No one facet of personality is primarily responsible for satisfactory vocational adjustment. The mental, physical and emotional factors which result from inherent capacities, experiences and growth, inter-relate and integrate into a total personality with certain patterns of adjustment. We take cognizance of this by joining in a rehabilitation "team" and integrating the work of the "team" for understanding the individual amputee, and for aiding him in modifying his personality so that more satisfactory patterns of adjustment will result. And finally, we recognize that even though certain occupational requirements may concern us more in the case of the amputee than in the case of other individuals, the difference is merely one of relative emphasis since these requirements govern satisfactory vocational adjustment of every individual in some measure.

MEDICAL SESSION

Thursday, October 26, 1950 • Grand Ballroom, 2:30 P.M.

Presiding

EUGENE D. ROSENFELD, M.D.

Executive Director, Long Island Jewish Hospital, Bellerose, Long Island

The Session Committee

CHAIRMAN

E. M. BLUESTONE, M.D., *Director, Montefiore Hospital for Chronic Diseases, New York City. The program for this session was arranged by the Conference Chairman,* MR. ELTON, *in conference with* DR. BLUESTONE

Introduction

DR. EUGENE D. ROSENFELD

We are privileged today to hear from a group of distinguished physicians, each an outstanding leader in his own field, on the general subject of the limitations inherent in patients suffering from a group of diseases with which all of us working in the field of rehabilitation are vitally concerned. It happens that many of us, when faced with such a problem, will take the uninformed attitude that the patient in question is not subject to rehabilitation, or, and probably as frequently and just as unfortunately, take the opposite attitude that rehabilitation is possible where, in fact, little or nothing can be done. It is to help clarify our thinking on just such problems that we have come together today.

A good deal of wasted effort and lost motion can be eliminated if we clearly understand that inherent in a given disease process are certain restrictions and limitations beyond which no patient can be expected to go; but more important than this, a clear understanding of these limitations will widen and extend the possibilities of rehabilitation for every patient. A recognition of limitations and restrictions is not a cause for a negative attitude toward rehabilitation. It is, on the contrary, a point of departure from which we may go forward to a wider understanding and a more successful application of the principles upon which the entire program of rehabilitation is based. Further than this, it is a challenge to all of us. We are challenged to convert the limitations inherent in the disease processes from which our patients suffer into assets, both physical and psychological.

Problems in Rehabilitation of the Arthritic

R. H. FREYBERG, M.D.

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One of the most difficult problems in modern medicine is the management of the arthritic patient. There are several reasons for this: The cause for some common forms of arthritis is not clear; the connective tissue abnormalities responsible for the joint damages are not understood; the reparative potentiality of joint cartilage is very small; many common forms of arthritis are very prolonged illnesses. But in most patients who have one of the forms of chronic arthritis there is more than the problem of treating a disease, there is also the very important problem of reckoning with the damages of the disease — damages which account for the crippling, the deformities, the incapacitation, the invalidism that are so devastating and handicap the unfortunate victim. So every patient who has *chronic* arthritis is a potential candidate for considerations of rehabilitation; the physician's responsibility to his arthritic patient should not stop when the disease becomes arrested, but should extend beyond the period of the active disease and should include rehabilitation if that be necessary. The problem of rehabilitation is just as important to the arthritic patient, and to society in general, as is the strictly medical challenge.

For this discussion, the different forms of arthritis can be divided into two groups: the acute, and the chronic varieties. Acute ar-

thritis is usually short-lived, or mild, so that the joint does not become damaged and therefore disability does not result. Rehabilitation problems arise chiefly from *chronic* arthritis, the vast majority of which is of one or two types — osteoarthritis and rheumatoid arthritis. These are vastly different diseases both as regards their pathologic features as well as their clinical characteristics, yet the rehabilitation problems are similar for each, and depend chiefly on the extent and location of the joints involved rather than upon the type of disease.

For the sake of clarity the differences between these diseases will be reviewed. Osteoarthritis usually affects only a few joints, sometimes only one major joint, usually a weight-bearing joint. The disease occurs in older individuals. It begins with degeneration of the articular cartilage at the site of greatest weight bearing or strain, and as a result of the degenerative changes, the joint surfaces become irregular. (Illustrations were projected.) Hypertrophic bone develops into spurs, lipping and even bridging at the bone edges adjacent to the joints. Disability from osteoarthritis results from these degenerative and hypertrophic changes. This is not an inflammatory disease, nor is it a systemic illness; ankylosis within the affected joint does not result, but impairment of joint function, especially in weight bearing joints, may be considerable. Osteoarthritis is medically important only to the regions where the disease exists, but from the standpoint of rehabilitation this localized disease may be important to the patient as a whole because of its crippling effects.

Rheumatoid arthritis contrasts sharply with osteoarthritis. This rheumatic illness affects many joints, occurs at any age but commonly among young adults, in an inflammatory disease, systemic in nature, with chief pathology at the joints. (Illustrative lantern slides.) The joint pathology begins with inflammation in the capsule of the joint, particularly in the inner lining, the synovium. Proliferative tissue spreads over the articular surface to which it oftentimes becomes quite adherent, and bv interfering with its nutrition, damages the cartilage so that its surface becomes rough and irregular; the cartilage thins; joint motion is interfered with, and deformities result. Because articular cartilage has no blood supply the damages are irreparable. The subchondral bone becomes osteoporotic and sometimes is damaged by the inflammation within the medulary canal. Dense fibrosis replaces the proliferative tissue and movement becomes almost completely obliterated ("fibrous ankylosis"). This fibrous tissue may become calcified, preventing any motion ("bony ankylosis"). Thus, impaired motion deformities and ankylosis all result from prolonged existence of inflammation. Because so many joints are affected by rheumatoid arthritis this disease incapacitates more persons than does even severe osteoarthritis, and so presents much greater problems of rehabilitation. Another important reason rheumatoid arthritis presents such a difficult problem of rehabilitation is that the disease continues in an undulating course for many years, producing more joint damage as it progresses. Thus, the handicap assumes different proportions as years pass, and the disability changes as different joints are damaged — a situation quite different from the deformities which result from trauma, or from poliomyelitis for example, conditions which produce all the disabling changes at one time, or in a short space of time.

In the rehabilitation of the arthritic it is important to consider prophylaxis. Little can be done to alter the course of osteoarthritis so as to prevent joint damages and avoid requirements of rehabilitation. Except to avoid activities which aggravate the degenerative changes, one cannot influence the course of the disease, which tends to progress to a certain stage and then stop. Considering the fact that all persons past the age of 45 have some demonstrable osteoarthritis, it is gratifying to realize that only about 2 percent of the population have enough trouble from it to request a physician's attention at sometime in their life, and only a small proportion of the approximately three million patients with osteoarthritis ever present problems of rehabilitation.

The prophylactic considerations for rheumatoid arthritis are two-fold: 1) the prevention of deformities and joint damage insofar as possible during the active disease, and 2) the adjustment of the patient's life so as to minimize relapses of the disease after remission has been accomplished. For the first consideration, wise use of supports, casts, braces, exercises, physical and occupational therapy provide the chief means of accomplishing the first objective. For the second objective, it is important to guide the patient's life so as to minimize physical strain, the stress from difficult life situations, harrassing responsibilities, and unpleasant, burdensome tasks. Innumerable experiences indicate that the rheumatoid arthritic is apt

to have relapse of his disease if he needs to return to strenuous physical work, or to a turmoil of responsibilities and unpleasant surroundings; and that the longest remissions in the disease occur among those persons who can have smooth living circumstances and work which requires only moderate physical activity. Thus prophylaxis for this disease requires changing living conditions, relocation of patients in new jobs to eliminate strenuous physical activity — problems in which a group of workers cooperating with social services, employment agencies, training centers and placement bureaus can give invaluable assistance.

Chief problems of rehabilitation for the arthritic, however, concern themselves with the unfortunate individuals who are already disabled from deformities and crippling damages of the disease, of which it is estimated that there are in the United States 140,000 persons. These persons present the opportunities for reconstructive surgery, for measures aimed to compensate for uncorrectable damages, for the maintenance or restitution of the proper philosophy of living with some joint deformities or crippling, for training in a skill or relocation in a job more adapted to the physical handicaps and for providing good environment surroundings. Such rehabilitation requires cooperative interest of several specialists coordinating their talents, each making his special contribution to the solution of a complex problem. The orthopedic surgeon, the specialist in physical medicine, the occupational therapist, the psychologist, sometimes a psychiatrist, the social worker and the coordinator of work activities, the managing general physician — all working as a team — can accomplish the best result. The value of the organized rehabilitation clinics to consider the individual patient's need along the various lines enumerated, and to plan programs which will best accomplish the purpose, can be appreciated readily. The medical rehabilitation centers, the occupational training centers, and most of all the service of the coordinating center leading to consummation of the objective all recognize the need for greater facilities to meet the increasing demands since the benefits of this type of rehabilitation are more widely appreciated.

Examples of rehabilitation problems presented by the arthritic patient were illustrated with lantern slides showing the types of deformity commonly encountered at different joints and the resulting disability. The importance of damaged joints of the hands of skilled laborers, musicians and professional men was emphasized. Methods to prevent or correct finger and hand deformities were discussed. Similarly, special problems produced by deformities or dysfunction of the elbows and shoulder were presented. Major problems grow out of damage to the hips, knees, feet and spine joints, for locomotion is so often interfered with. These factors were stressed.

Finally, the great problem of the arthritic invalid who has deformities or other serious damages of joints of all four extremities was discussed; also the psychologic reaction of the patient and the problem of his adjustment to the disease were discussed.

SUMMARY

The difficult rehabilitation problems of the arthritic are best managed by a team of specially trained persons including an orthopedic surgeon, physical medicine expert, psychologist or psychiatrist, vocation guidance expert, education and social service worker — all cooperating with a managing physician with deep insight into the problems. Hospital, treatment centers and training workshops provide greatest facilities for realizing the objectives. As is true with problems produced by other illnesses, for the arthritic, rehabilitation needs to be individualized. From a carefully planned and executed program very gratifying results can be obtained. Facilities for rehabilitation of patients with joint disabilities should be more generally available.

Tuberculous

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With the newer antibiotics and resectional type of surgery in tuberculosis, never before have we had such efficient technical skills for the attack on tuberculosis, and we are convinced that in this country tuberculosis can be reduced to a point where it is no longer an important health problem. Mayor LaGuardia, speaking prophetically when he dedicated the new Triboro Hospital building for tuberculosis in 1941, made the statement that in ten years he felt that the hospital would be utilized for other medical purposes than for the treatment of tuberculosis. It is to the physician to whom we look for leadership in the medical diagnosis and the treatment of this disease. Without the implementation of this part of the program by

the physician, these weapons which we use against tuberculosis cannot be effective. However, the physician cannot afford to limit his activities to the purely scientific aspects of a disease in which some of the most important problems are *not* medical. This non-medical service is the Rehabilitation service — physical, mental, social, vocational and economic — which we must make available to all tuberculosis patients. Because of the vast social and economic aspects of tuberculosis, it is impossible for the physician alone to reach the ultimate objective of completely controlling the disease. We must have the assistance and cooperation of the well-organized, efficient official agencies and voluntary organizations.

It is up to the medical profession to assume the task of establishing solid and reliable criteria for the evaluation of physical disability. This is important for the Rehabilitation official. Before the recently discharged TB can be placed in a position where he can safely do an efficient day's work, we should know more about disability evaluation. We should know the physical energy demanded of a variety of occupations. The job must be studied from the biological point of view. This has not yet been achieved.

There are any number of tests, and related functions for the determining of the respiratory reserve of patients with pulmonary disease. We know the physical principles involved in pneumothorax, and the effects of thoracoplasty on the physiology of respiration. In determining the physical capacities of tuberculosis patients, walking was used for a long time as the basis for determining the physical capacities of our patients, and there have been worked out a group of substitute activities calling for the same amount of work, same amount of energy expenditure that walking would entail. This seems to be of more practical value than in making physiological measurements with a tendency to base assumptions on results obtained under basal conditions. Under such basal conditions the patient is usually required to be in the supine position with minimal physical and metabolic activity. While the normal conditions of living are accompanied by movement, exertions, cerebration and active metabolism, usually in the erect position, so that measurement of capacity and range of function are more serviceable, measured during actual working conditions. The working conditions we seek now are the avoidance of too great exposure to various unfavorable physical factors, such as gases and sudden changes in temperature, fumes, dust, insufficient or excess of heat. Avoidance of work which requires handling food or utensils used by other people. We feel too that long hours are contra-indicated as are frequent changes of working hours, changing of tours of duty, and the tension which comes from piece work. We have no measurement, no calculation for the average determinations for groups according to age, sex, color, and extent of disease, so that the making of a patient eligible for rehabilitation services is not on scientific footing. We try to classify them into categories for retraining, such as (1) those with progressive disease for whom vocational planning is not practical at the moment; (2) those who can and are able to return to their former positions. These require little or no retraining, but need a period of work therapy; (3) those who probably will be partially incapacitated for life. That is, those with pulmonary fibrosis and emphysema; (4) those with good chronic stable disease and occasional positive cultures, and occasional positive concentrates; (5) those with a good prognosis, but unable to return to their former work, require complete retraining. Children usually will require continuation of education and possible vocational guidance. At most TB hospitals, in-patients are seen shortly after their admission to the hospital. From then on their rehabilitation program is regulated according to the medical activity classification. When the patient is discharged from the hospital to the Out-Patient Department, he may still receive counseling, but cannot begin training until a new activity prescription is given by the Out-Patient Department consultant. To begin rehabilitation training he must fulfill the classification for arrested by the N.T.A.

Work Capacity and Its Relationship to the Treatment of Tuberculosis

Assuming the patient is now ready to participate in the program of training or return to work, have we any qualitative or quantitative yardstick with which to measure the patient's activity? We must rely for the most part on our empirical judgment to determine at what time the patient may begin his activity and how much activity he may participate in. The work tryout plan is one of the most valuable methods of actual job testing that we have. Here the individual is entered into a sheltered workshop to do part-time work along some endeavor related to his job.

Here the patient works and studies and he is not pampered. He is expected to report to work daily, regardless of the type of weather. He is not given any prescribed period of rest, and we are not over solicitous in our questioning of him. In a situation of this kind the patient who has an aptitude builds up certain work habits, or rather returns to work habits that he had before entering the hospital. We find how he manages travel by bus or subway; can he manage the different changes of weather, and report in a dull day as well as a bright shiny day? Does he come late for work? This preliminary period of work also serves as a build-up for his confidence and it serves to keep before the patient's mind the eventual going back to work that will result from this training. Such a program is also of value because of the fact that we do not have adequate aptitude tests for all jobs, and in many instances the individual's potentialities for work can be best evaluated by observing him on various jobs under actual working conditions.

What factors do we take into account in evaluating a case for rehabilitation? Some factors are common to all the patients: i.e., the period of prolonged bed rest which causes a loss of endurance; postural coordination and adjustment, it causes decrease in cardio-circulatory capacity and efficiency; the heart becomes smaller and a relative tachycardia develops, and shortness of breath is found even under basal conditions. The nitrogen balance and the calcium-potassium balance is affected, too, adversely. These disturbances in homeostasis have changed one's attitude towards bed rest. The frequency of recurrence and complications, especially in pneumothorax, must be taken into consideration, and usually an episode of this kind requires another period of long hospitalization, interrupting our program or returning the patient to the sanatorium, after being out in the working world. The inertia of the patient consequent to his realization that he never will be cured must be overcome by relearning and readjusting to civilian life. The age is of considerable importance. We permit individuals in the age group from 16 to 20 to participate in training and work programs with considerably more trepidation, since in this age group there is little tendency to scarring of the disease process, and where the immunological processes of the body, especially in the female sex, is seriously interfered with during the child-bearing period. The type of the disease and the type of healing is an important consideration. For example, the exudative disease, by which I mean simply an area of tuberculous pneumonia with some cheesy material or caseation present, which usually contains a considerable number of tubercle bacilli. This area may be thumbprint in size or may occupy an entire lobe. If the disease heals by simple encapsulation of this area of tuberculous pneumonia, one is more hesitant about getting that patient back to work too early, and tryout plan is indicated. To get his patient back to activity sooner we will require more frequent checkups, for we know that the relapse is much higher for this type of disease. This holds regardless of the race of the individual, or color, or body build. Then there is the disease which heals by being resolved, by disappearing from the X-ray picture. Or we have a cavity which heals by forming a scar in the lung. This offers a much better prognosis for the future and we can start patients off on training and work much sooner and with more security that the patients will remain out of the hospital. There are the cases of bilateral disease; these patients usually in their healing processes have bronchiectasis remaining, and the areas where the blood has lodged during episodes of hemorrhage causes scar tissue to form, seriously interfering with the pulmonary ventilatory function. These nontuberculous complications cause the patient to be subject to frequent bouts of respiratory infection and bronchitis, requiring rest at home and loss of time from their work, and one must be very exact about work requirements in these individuals, to avoid damp and dusty atmospheres. We often prefer that they work outdoor; except in inclement weather. There is the case that has pneumothorax for several years. The patient has been working. Then the time comes to re-expand the lung. It is then found that because of the scar tissue from a pleuritis, the lung is unable to expand. This complication usually requires that the patient be returned to the hospital to have this fibrin peel removed from the lung to permit it to re-expand again. Or failing that, the patient might have to have a thoracoplasty. Again his period of work is interrupted for six months to a year of hospitalization. Most cases of pneumothorax have a resultant decrease in their vital capacity which is, of course, much more marked with a bilateral pneumothorax, and here, regardless how minimal the disease in the lung was, or how well healed it is, these individuals are limited in their capacity only

to sedentary type of work as a result of the treatment. Thoracoplasty by itself does not commonly impede the individual physical function much. The most important factors are the state of the pleura, and how much scar tissue remains in the lung as the result of the healing process. How should we regard cases of resectional therapy, and cases that respond favorably to streptomycin in short orders, in our rehabilitation program. Should they be permitted to return to work sooner or to start a course in training or work therapy sooner than the patient whose disease is controlled with pneumothorax or thoracoplasty, and bedrest alone? It is obvious in the case where the disease is controlled with thoracoplasty or pneumothorax, that the disease is still present — the collapse procedure immobilizes the body, destroys — and it is fully dependent upon the physical resources of the body to overcome the disease with scar tissue, or to encapsulate the focus. This can only be done with continued bedrest and graduated activity. However, in resectional therapy we take out part of the lung or the entire lung. In this way we remove the major focus of tuberculous disease, and we might feel that since the focus of the disease has been removed the patient, then, should be permitted a short period of convalescence, just like a lung abscess which has been drained, or a patient who has had resectional therapy for some non-tuberculous disease. However, this kind of thinking is fallacious; those who work with tuberculosis disease know very well that tuberculosis almost invariably is bilateral. The fact that we do not see the infiltrate in the opposite lung or the lower portion of the same side that the disease is resected, does not mean that the disease is not there, and from our experience with resectional therapy we have found out that the patient may flare-up with, or have an exacerbation in the opposite lung or in the remaining portion of the lung on the same side of the resection. (As the patient's tubercle bacilli are not now sensitive to streptomycin there will of course be considerable danger.) For this reason the patient who has had resectional surgery should have the same long period of convalescence that the patient has with thoracoplasty and pneumothorax, or bedrest type of healing. Let us consider the case that is treated with streptomycin. We well know that the best results in treatment with streptomycin and PAS are in the early exudative disease before cavitation and scarring has taken place, and in preparing the patient for surgery. Streptomycin in a few instances does alter the pathology of the disease, so that where tuberculous tissue was present before, it is now replaced with scar tissue, and difficult to recognize the fact that it was once due to tuberculosis. However, the greater number of cases are brought under control more quickly with streptomycin than with bedrest. However, the disease is still caseous; that is, potentially active, but it is simply encapsulated much sooner, and for this reason we should not be misled that the patient's sputum is turned negative so quickly that perhaps he is cured. He should be regarded as an arrested case with all the implications thereto.

One of the great obstacles to reemployment of tuberculosis ex-patients is the employer's fear of incurring legal liability for any subsequent breakdown which such patients-employees may experience. We are approaching the determination of compensation liability with the most intelligent methods that can be applied. There should be added items to schedule adequately describing the process of work or conditions under which the disease may be compensated. The method that will be absolutely fair to the worker, also at the same time just to the employer. We must recognize the widespread prevalence of the disease, and its tendency to be present and asymptomatic and, therefore, undiagnosed. Not every case of tuberculosis discovered during one's occupation should be compensated. A great deal of the blame for most of the difficulties has been attributed to the medical profession. The very simplicity of certification by a physician that the disease was due to the occupation has caused many physicians to lose sight of the fact that important decisions rest on the decisions that they are making. The medical profession must not believe and permit to make believe the convenient assumption that tuberculosis is due to the occupation at the time the disease happened to be discovered. When we know that, with the exception of nurses and disease due to trauma silicosis, few cases are related to the occupation. Medical opinion must be competent and not of the vacillating type now so prevalent. Under these circumstances the employer might be willing to hire handicapped workers.

In our concept of rehabilitation we except no patient. The patient should be seen by a rehabilitation counselor within the first two weeks after admission. At this first interview the counselor should give the patient

something constructive to think about and something to hold on when he is assailed by the defeatist conversation and attitude carried on by the old chronic patients. For those patients whose training will be the eventual responsibility of the State Division of Vocational Rehabilitation a joint conference should be arranged at the hospital with the patient, counselor and representative of the SDVR participating. Such conferences should take place at the time when the patient is ready to consider a long time vocational plan and before the time the plan has had time to crystallize. There should be ample opportunity for actual work situations to be participated in while the patient is in the hospital, because no test has ever been devised which is as predictive of success on the job as placement of a person in this situation.

How do the emotional components in tuberculosis affect the patient's capacity to work? We all know the tuberculous patient is subject to some degree of emotional unbalance, because he is subject to a special set of anxiety-invoking factors simply because he has been diagnosed as tuberculous and sent to a sanatorium. The sources of emotional unrest, according to Dr. Merrill of Montefiore Hospital, can be divided into two categories: (1) Those that were part of the patient's personality since childhood, and existed prior to the development of the disease. (2) Those emotional problems that are connected with the diagnosis of tuberculosis and with spending an important part of one's life experience in the sanatorium. We know that most patients have developed a certain concept about the disease before they literally become ill. We have learned through interviewing tuberculous patients that underlying the more adult and intelligent concepts of the disease is a set of ideas that the patient has picked up haphazardly in early childhood and as he grew up. Many of these early beliefs are so unpleasant that they are repressed when the patient learns he is tuberculous. This very repression is often crippling. Some of these may have come from the average lag in time that has been found to exist between the time a person first develops symptoms and the time he first consults the physician. There are other reasons why the diagnosis is a shock to anyone: (1) It is a threat to the patient's life, and no matter what you tell him, he senses it. (2) The patient must remain in constant doubt for years about the issue of his own life. The patient soon learns that there are few or no symptoms that will tell him the progress of the struggle. He is faced with a problem that he cannot see by himself, but has to accept on the authority of the physician. So that it is not uncommon to have a patient come to the office and say that for the two weeks before coming to report for his monthly checkup he has suffered from shortness of breath, cold clammy palms, tachycardia, and anorexia, and other symptoms that could really impair his health, and this is all due to a conditioned neurosis as a result of his fear of what the X-ray will reveal. Frequent episodes of emotional turmoil in this sense can seriously interfere with the patient's capacity for work. And in a sense we can even ally it to the stress mechanism which is being emphasized to physicians. Constant chronic stress of this kind can interfere with the endocrine function in the body, and interfere with the mechanism of formation of antibodies, and cause relapses. It can also lead to other chronic neuroses and the development of non-tuberculous diseases like hypertension, peptic ulcer, hyper-thyroidism. Thus you have in the tuberculous patient in the sanatorium an individual who has sustained a traumatic experience, who has been separated from his family, and who has had to give up his job, and who knows that his disease has meant a drastic rearrangement of his family life. All of this is apt to make the individual a very dependent person. This regression of the patient to childhood dependence is acceptable under the circumstances, but where the disease requires long hospitalization such dependence and helplessness can readily become a severe hazard, prolonging the course of the disease and greatly hampering the success of the treatment and rehabilitation. The sanatorium life provides a highly artificial atmosphere. Here are a group of fellow sufferers isolated from all close ties of family and friends. The disease becomes the center of all interest and chief topic of talk, and laziness and intellectual deterioration are often fostered. Therefore, with all these facts in mind it is important that rehabilitation begin with the diagnosis of tuberculosis. Since the intellect is not involved in tuberculosis, we can begin education and training in the hospital, and thus allow the patient to utilize this capacity very early. Another reason for starting a rehabilitation program early is that many patients supposedly on bedrest are really so disturbed that little relaxation takes place. It is, therefore, better

to utilize this period constructively with a view to releasing some of this tension.

In total rehabilitation all facets of the patient should be explored. Sometimes in spite of otherwise excellent physical, economic and intellectual factors we come across a defect which alas is not hidden. This defect is in the personality. Perhaps a case will best illustrate this point. At first sight this young man seemed a perfect rehabilitation case. He was 24 years old, single, a good home background with devoted parents. He was a high school graduate and was very interested in completing further academic education. His disease was minimal, and the diagnosis had been made at its early stage. He seemed amenable to counseling, was given correspondence courses before his surgery, and attended classes in commercial subjects, and in academic work after the surgery. He was examined by the psychologist and was found to be above average in intelligence, but not college material. He displayed unusual persistence and ambition. All was well until another patient was given a scholarship. At that time this young man felt that he too should have a scholarship. This patient then began to display the negative side of his personality. Although he continued to get good marks in his correspondence course in accountancy, his papers were very messy and he did not take correction lightly. A Rorschach Test disclosed that he had an achievement drive greatly exceeding his capacity; that he was immature emotionally, egocentric, sensitive, suspicious, overly critical, and apt to act impulsively. The Rorschach also indicated that this young man sees himself as an inadequate, misshapen individual. There is a good deal of aggression which is apt to be turned inward. This analysis of this particular patient's personality is borne out by his subsequent and present behavior. Although he received adequate and personal instruction while in the hospital and a business training course financed by the SDVR after hospitalization, at the moment he does not feel that anyone has helped him. He refuses to discuss his problems, refuses to come to the clinic to have his problems discussed with him, and probably would not be willing to accept referral to a mental hygiene clinic. At the present time this patient is unemployable, not because of tuberculosis, but because of his emotional maladjustment.

The term "good chronic" refers to the problem of the person with the persistence of tubercle bacilli in the sputum. I think we are coming closer to a solution for this type of patient than we ever have before. Actually these individuals demand separate consideration. These good chronics, so to speak, have been classified as capacitated infectious patients, and have been classified as all patients who are able to work a minimum of 20 hours, weekly, but who have persistence of bacteriologically positive sputums. I would also include in this classification, patients who have frequent exacerbations of the disease, individuals who go out into competitive lives and are able to work from six months to a year, or longer, and then must return to the hospital because of a breakdown. Sometimes the reasons are psychological; other times it is because the individual is unsuited vocationally to the type of job we have put him into. Whereas his previous training required just physical activity, his back is not strong enough now, and he cannot make the adjustment, and has not the ability to make the adjustment to this new type of work, which is usually clerical. Usually his excuse is that if he could return to the hospital for a few months he would feel much better.

The open case of tuberculosis should be isolated. Isolation is best obtained in the hospital or sanatorium. Rehabilitation for this group will have to cater permanently to them, whether they are dealt with in village settlements, units or work-shop, or returned to industry under medical supervision to do full or part-time work. It has been suggested that we segregate the infective group in a separate workshop of the main factory, or a small factory with the capacity of about a hundred employees. In New York City, and I suppose elsewhere, we are building up a considerable population that fits this class of capacitated infective patients. Many of them have no homes to return to, for the reason that they are alone, or the children refuse to take them back. What has been done is that they are supported on welfare; they live in a dreary furnished room; they must eat their meals in a corner diner and sometimes infect other people. They are usually depressed, feel inadequate and the content of their lives is nil. These patients are disturbing elements in the active TB hospital. Among new arrivals and patients with a better prognosis they are not desirable. Their mental depression and incurable physical condition is held up to the others as an example of the utter impossibility of ever curing the disease. Some of the new patients are filled with despair

and either sign themselves out of the hospital or become despondent, uncooperative and rue their "lot." We can accomplish much with this chronic by removing him from that hospital and putting him in an environment where he can earn a living, and have a sense of security, and be under daily medical supervision, with his room and board provided and his work sold in the open market, and the money returned to him. Homebound employment has been offered as a possibility in this case; however, many of these patients have no homes to return to. As long as they now must be hospitalized we are attempting a solution for this type of patient at Neponsit Hospital, an annex of Triboro Hospital.

Here we have a small village of fairly able-bodied, ambulant males, some of whom are quite young, chronologically, but none of whom is susceptible to vocational rehabilitation; in other words, they do not need vocational training. From the humane point of view something should be done for these individuals. We feel the answer lies in a rehabilitation work therapy program; productive work of some kind must be found for them. This work must be non-arduous; must be emotionally satisfying to the patient, and must bring him some financial reward. First, such work projects must be found; then cleared through the proper authorities, and outlets for the work secured. All of these preliminaries are now under way. One work project is now being used as a pilot study. With even this much attention and planning for their future, the patients engaged in this work are much happier and contented than they were before the project was proposed. It is certainly economically unsound, especially in times like this, when our manpower reserves are being evaluated, to permit a large number of otherwise able-bodied men to be idle at the public's expense. It is to be hoped that with the new antibiotics, early diagnosis and surgery, that at some forseeable future there will be no such thing as the good chronic. But until that happy day society has a problem which must be met.

To summate, we are forced to conclude that there have been no real advances made in the field of measuring work tolerance. It rests upon the physician in charge of such program to use common sense and his knowledge of the natural history of tuberculosis in guiding the patients in their restitution to health and productiveness.

Cardiac

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It has always been difficult to measure the work capacity of the patient with heart disease. In fact it is more difficult in the cardiac group than in any other disease group. One of the principal reasons, rather obviously, is the fear of sudden death which tends to color the actions of the patient as well as the judgment of the physician.

The patient very often fears to do more than the amount of work he has set for himself. Not infrequently this decision is due to the poor advice given to him by his relatives and friends. It may be based on experiences with his friends, particularly those who have reached the age when coronary artery occlusions are common. It is sometimes due to the over-cautious advice of his physician who errs on the side of restricting too much rather than giving the necessary attention to the patient's future needs.

The above psychological factors exert a profound influence on the cardiac patient. They make it most difficult to supply an objective answer about his work capacity.

When the Work Classification Unit was first set up at Bellevue Hospital in 1941, it very soon became obvious to all of us who were working there, that rating of work capacity was not to be an easy job. The functional and therapeutic classification of the New York Heart Association was well known to us and at first seemed to be all that would be necessary for advice to the placement counselor.

This classification consists of grading the patient's functional ability in one of four groups. It is based essentially on the medical history of what the patient has been able to do without presenting symptoms of cardiac insufficiency. It runs from Class I, in which the patient can do ordinary physical activity without such symptoms, to Class IV, for patients who can not carry on any physical activity without discomfort.

The therapeutic classification uses five groups designated as letters from A to E. It is the physician's prescription of the amount of activity the patient may perform. Class A is for patients who need no limitation of physical activity. Such activity is progressively limited in each group until Class E is reached, which allows only for complete rest.

However, when these counselors sent us letters with specific questions, it became obvious that the classification we were using was too broad in its scope. It was helpful in deciding the type of medical treatment the patient was to receive and, in a very general way, the type of life he should lead. The demands of the guidance people were more specific and we had to try to meet them half way.

In addition to the usual medical and social history, a careful work history was taken. This work history was correlated with the advice given to the patient by his personal physician. In our records this advice was noted either in the form of verbal advice given to the patient or in the reported functional and therapeutic classification of the New York Heart Association. It was a great surprise to us to discover the large number of patients who had not heeded this advice when it came to earning a living. Despite this, they were in as good condition as would be expected if they had followed the regimens set down by their doctors. This led us to become more lenient in advising our patients. We felt more than justified, since this early period coincided with the manpower shortage of the last war. Our follow-up has confirmed our first impression, namely, that cardiacs can do more work than we, as physicians, had thought they could. Of course, they were placed under medical supervision.

This experience did not completely satisfy us even though the results were good. We were still looking for objective tests in order to exclude the psychologic element which, as mentioned previously, is so important a factor in making evaluation difficult. At the beginning of our work, we tried the Schneider index but soon gave it up as of no value. This index was based on changes in blood pressure and pulse rate that occurred after a measured type of exercise. We even tried the simple trick of having the patient climb one flight of stairs at the clinic. This also did not help. Work is still going on in an attempt to find a good test. Most of the efforts at present are based on blood oxygen studies, vital capacity determinations and the like. These tests require a great deal of apparatus and are not of much use clinically. However, a useful practical tool in the future may result from these attempts.

One of the best techniques that can be used is unfortunately not available frequently enough. This would be medical observation of the patient during the time he was either actually on his job or doing the work in a special workshop set-up. I have been fortunate in having been able to observe a few patients whose employers were willing to cooperate. All these patients had had coronary artery occlusions. The number of hours at work was increased at a fairly rapid pace. The patients gained confidence in their ability to work and, within several weeks, were soon working regular hours.

For those cardiac patients with severe psychologic disturbances, we have used the Altro Workshops. These workshops were originally organized to study the rehabilitation of the tuberculous patient and used the manufacture of garments as the work base. Recently funds became available to them for the study of patients with heart disease. Because of the group psychotherapy given there, we have found that the patients who have attended these workshops have benefited greatly. However, it has not been of much help in training patients for jobs but its psychological help has been of tremendous value.

The ideal situation would be to have good well equipped workshops with psychiatrists and cardiologists in attendance. Psychologic therapy would do a great deal to remove the fears that the cardiac patient has about his condition and his relationship to his job. The recommendations of the cardiologist for therapy should be sent to the patient's physician, who should be administering the treatment. The equipment should be varied enough to enable the testing of the patient's ability to handle the contemplated job. However, I do not think such workshops would increase the physical aspects of the patient's work capacity. They would help to increase his confidence in his ability to handle the job.

Another factor to be taken into consideration in placement is travel time. The method of transportation apparently does not make too much difference. The only limiting factor, in large cities, is the number of stairs that have to be climbed if the subway or elevated train is to be used. Crowded conditions do not seem to be a deterrent. I interviewed many patients and very few complained of crowded conditions and we certainly do have them here in New York. The length of time to get to work does play a role in tiring the patient so that he can not put in a full day's work. Although this does not influence our physician's opinion as to the type of work the patient can do, it must be considered in actual job placement.

Of great value to the patient is the con-

ference between the guidance counselor and the cardiologist. At our clinic at Bellevue this is in the form of a letter from the referring agency. The more questions the counselor asks, the more complete can the cardiologist's answer be. At Beekman Downtown Hospital where this service is given to the patients attending the cardiac clinic, the counselor and I discuss each patient. Those cases I have seen for the Division of Vocational Rehabilitation have very often been discussed by telephone. It is my impression that verbal discussions help more than letters. The fuller the history, and the more questions asked of the physician, the better the disposition of the patient's problem.

At the Work Classification Unit we have devised a report form which we think gives the most complete answer to a referring agency. It consists of features adapted from various sources, such as the Division of Vocational Rehabilitation of the State of New York, the Heart Association, and the War Man Power Commission of World War II. It consists of six main headings. The first two are concerned with the diagnosis and prognosis of the patient's heart disease. The third mentions other disabling factors that the patient may have. The fourth gives the evaluation of his emotional adjustment. The fifth discusses his employability in the terms of his functional and therapeutic classification which was outlined previously. It outlines his work tolerance and travel restrictions. Finally, it lists numerous physical activities and working conditions. The physician indicates which are definitely banned and which are limited. He must be specific about the degree of limitation which the patient must follow for those activities in the second category. The last consists of "recommendations" in which space the physician answers any specific questions that the placement counselor asks.

It can thus be seen that evaluation of the cardiac patient is very complicated because there are no objective tests that can be used. The psychologic problems that are imposed on the patient with heart disease makes it difficult to evaluate his work capacity. The problem of sudden death, which is always a possibility for the patient with heart disease, makes all decisions more exacting. A careful medical and work history are of the utmost value in helping decide the proper placement. Properly staffed and controlled workshops would be of great help. Finally, close consultation between the guidance counselor and the cardiologist will result in the best advice to the patient.

Seriously Crippled

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The rehabilitation of the severely disabled is one of the most important problems which our nation must solve. Unless something is done for the increasing number of severely handicapped individuals, it is prognosticated on good statistical evidence that by the year 2000 every normal individual will be supporting a disabled person. We of the medical profession are largely responsible for the present state of affairs because of the program of preventive medicine and better medical and surgical techniques.

The problem which we must now solve is to devise better methods of evaluating and rehabilitating the severely disabled in order that they may be trained and placed in a vocation best suited to their abilities and disabilities.

The National Services for Disabled Persons Amendments of 1950, if carried out as desired by those who drafted this new bill, will do much to solve this problem. In commenting on this bill, the Senate Subcommittee said, "There is said to be a failure in some states to accept for rehabilitation the more severely disabled cases, this despite the fact that medical science offers ever-increasing hope for the restoration of such persons to useful living. Conversely, there has been a marked tendency in some states to give the benefits of the program primarily to that group of individuals who are easily trained and quickly absorbed into the labor market. The creative work now being done by our great voluntary medical centers should be a challenge to the states to develop a more imaginative and complete rehabilitation program." New provisions in this bill will permit grants-in-aid for vending stands for the blind, auxiliary services in workshop, employment programs for the home-bound and assistance to the severely disabled in establishing small businesses. Authorization is also provided for grants-in-aid for rehabilitation centers and workshops for the severely disabled.

Before any disabled person should be considered for the benefits now made possible by this new legislation it is most essential that his physical potentialities be carefully evaluated. The purpose of this evaluation would be to see if his physical disabilities

could be improved by medical, surgical or rehabilitation procedures. The vocational possibilities of a severely disabled person depends upon his ability to travel, care for his daily needs, the use of his hands and speech. If he can accomplish these essential activities of daily living he has a wide choice of vocations. His vocational opportunities are reduced in proportion to his physical ability to perform these activities. If he is unable to travel he is limited to homebound work unless he can be transported to his job. If he cannot use his hands adequately his vocational possibilities must depend upon his ability to speak. If he has inadequate speech his economic value is limited to the use of his hands. No one is paid for the knowledge he has in his head. It is only the knowledge we can get out of the head, through speech or the use of the hands, which has a saleable value. It is for these reasons that I say, physical rehabilitation should precede educational and vocational rehabilitation.

PHYSICAL EVALUATION

In evaluating the physical capacity of a disabled person for vocational training and placement, the following procedures are suggested:

1. A medical abstract should be obtained from his physician. The important things to be learned from the medical report are the causes and the conditions which produced the disabilities. The three principal causes of disabilities are due to congenital defects, accidents and disease. Usually disabilities caused by congenital defects or accidents are static, or tend to improve, while those caused by disease may be progressive. An individual with paralysis of both lower extremities caused by an accident would have a different vocational objective than one who had the same disability caused by multiple sclerosis. The traumatic paraplegia would be considered static while the M. S. paraplegic must be considered progressive until proven otherwise.
2. The subject should be examined to discover his disabilities and the parts of the body involved. In our examination of physically disabled persons we have found the two principal reasons for their disabilities are limitation of range of motion at the joints and/or dysfunction of muscles such as, flaccidity, spasticity, athetosis or ataxia. Fractures, tuberculosis and osteomyelitis (of bones), arthritis (of joints), the dystrophies (of muscles), cerebral palsy, poliomyelitis, multiple sclerosis (of brain or spinal cord) produce their disabilities by limiting the range of motion at the joints or affecting the voluntary movements of the muscles.
3. The extent of the disability should be measured.

This information can be obtained for the physician by the physical or occupational therapist who are trained in these procedures. The therapist measures the range of motion with the goniometer and records her findings. There is a standard procedure for evaluating the strength of muscles.

It is impossible to evaluate the results of treatment unless the extent of disability is known and recorded.

4. What is the handicaps produced by the disability?

It is impossible to prognosticate from the measurements of joint motion and strength what activities a determined disabled person can perform. Subjects with the same disability and extent of disability give a different performance when tested in the activities for daily living. No one can predict with any degree of reliability the compensatory ability of a disabled person to perform function activities until he tests the person in that activity. It is therefore necessary to test the patient in functional activities* to measure the extent to which the limitation of motion, strength and coordination affect the individual in daily living or working.

The test which has been devised includes toilet, dressing and eating activities in bed and wheelchair and walking, climbing and elevation activities. The findings obtained from this test make it possible to evaluate the degree to which the disability handicaps the patient in performing the activities essential for daily living.

METHODS OF TREATMENT

The methods of treatment necessary to obtain the maximum return of function in joint movements, strength and coordination and the ability to perform the activities essential for daily living and working is based upon the results of the testing. The five methods of treatment which have been found most useful are medical and surgical procedures, physical therapy, occupational therapy, therapeutic exercises and physical re-education in performing the activities essential for daily living and working.

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* The D.A.L. Test, Bellevue Hospital Rehabilitation Center, New York City, N. Y.

Medical and Surgical Procedures: Drugs, diets, manipulation and prosthetic appliances are forms of therapy used in correcting disabilities.

Physical Therapy: Heat, light, water, electricity, massage and exercise are the modalities used in physical therapy.

Occupational Therapy: Arts and crafts such as wood and metal work, weaving, writing, sewing and typing are useful and interesting activities conducive to increasing motion, strength and coordination.

Therapeutic Exercises: Motion can be increased and muscles strengthened by active exercises on the mat, by pulley therapy, bicycles and other forms of mechanical appliances.

Physical Re-education: Articular movements can be increased, muscles strengthened and coordination improved by performance of the activities essential to daily living.

THE PROGRAM OF REHABILITATION

The program of rehabilitation consists of prescribing the forms of therapy necessary to correct the patient's disabilities so that he can perform the activities essential for daily living or working or in learning how to perform the activities with his disabilities. To obtain our objectives, it will be necessary to broaden our present program. Therapists must be available to teach patients to walk with crutches, braces and artificial legs, to use gadgets, to write with the left hand and overcome speech disabilities. Social service workers and vocational guidance counsellors are needed to help the patient in his social problems and job placement. This is a program which will utilize the time of the patient for at least five hours each day.

EVALUATING THE RESULTS

The purpose of the program is to teach the patient to walk and travel, care for his daily needs and have the maximum use of his hands and voice so that he may be independent of the help of others and, if possible, be employed in a gainful occupation. The results of the program for each patient may be evaluated on the following criteria:

1. Can perform the activities of daily living and return to his former occupation.
2. Can perform the activities of daily living but cannot return to his former occupation. The steelworker who has lost a limb would not be able to work with safety on tall buildings. Training in a new vocation may be necessary.
3. Can perform the activities of daily living in a slow and labored manner because of lack of speed and coordination of the extremities. The employment possibilities of these persons are limited to the Sheltered Work Shop, where they are paid for the work they produce satisfactorily, or to positions where speed and coordination are not a prerequisite. Many cerebral palsy patients are in this group and have found gainful employment as errand boys, messengers, laboratory attendants to care for animals, or in farm work.
4. Can perform self-care activities and ambulate but unable to climb stairs and curbs or travel on public conveyances. They are classified as the homebound disabled and unproductive persons unless one of the following plans can be consummated:
   a. Institute a homebound program and deliver material to their home
   b. Transport the person by taxi or station wagon to their work or to a sheltered work shop.
   c. Obtain employment in an institution where they are given room and board.
5. Can perform *most* self-care activities and ambulate in the hospital or in their home but are unable to climb stairs or curbs to use their extremities for any gainful occupation. The great majority of older hemiplegic patients with hypertension or cardiac disease are in this classification. If, however, these patients are not rehabilitated to this extent they often remain in the hospital, as the family cannot give the care they need. Should the family not accept the patient in the home and he is placed in an institution, the ability to care for most of his daily needs will save the cost of an attendant.
6. Can perform so few self-care activities, the patient will need institutional or home-care, with a nurse or attendant. These patients do not have the physical or mental capabilities to overcome their handicaps.

The classification of the physical potentialities for living and working should be of great assistance to the vocational guidance counsellor in vocational training and placement of a disabled person.

Conclusions: The procedures necessary for the rehabilitation of the severely disabled person are being practiced in a few institutions with great success. What is needed is more rehabilitation wards in hospitals, more

rehabilitation centers in our cities and a greater interest in rehabilitation by the medical profession. The physical rehabilitation of the severely disabled person will be of little value unless our State Vocational Agencies accept these individuals for training and placement in a position best suited to his abilities and disabilities.

Epileptic

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I am grateful for this opportunity to discuss with you the problems of the epileptic, particularly those that are related to rehabilitation. You know better than I do the problems of the handicapped and the chronically ill and it was the purpose of these meetings to suggest some possible solutions. Our particular interest, however, is directed toward the individual with a convulsive disorder.

There are approximately 600,000 persons in this country who have convulsive seizures. Of this group about 50,000 are confined to institutions, the rest exist outside of hospitals and are the ones with whom we are primarily concerned. Epilepsy, unfortunately, tends to occur in young individuals, a section of the population that should be our most self-reliant, most independent and most productive group. Instead we find that their cost to society is enormous. Lennox[1] has estimated that the cost of the care of the epileptics in institutions is about $20,000,000 a year and because a large proportion of those outside institutions cannot find employment, the total direct annual cost of epilepsy must be at least $100,000,000.

That this need not be true has been repeatedly emphasized by numerous studies. In one investigation[2] it was found that 80 percent of all ambulatory epileptics, of employable age and under modern medical treatment, were employable at any positions or professions that their mental and manual abilities warranted. An additional 5 percent were employable but only under "sheltered work-shop conditions" because of the frequency or severity of seizures. Five percent required rehabilitation and readjustment. The remaining 10 percent were unemployable because of major personality disorders which required extensive psychiatric treatment.

The rehabilitation of the epileptic is so intimately bound up with his treatment that they become almost one and the same thing. No successful rehabilitation program can be instituted until: 1) The patient's seizures are controlled or almost completely controlled by the use of drugs; until 2) the patient has learned to accept his illness and lose his fear of the seizure or the likelihood of a seizure; until 3) he has learned to accept repeated rejections with a minimum of resentment; and until 4) he is willing to tell friends and employers about his attacks. An effective program requires the cooperation of the patient, the physician and the vocational counselor. The help of the psychiatrist, the psychologist and the social worker is frequently necessary.

Let us consider some of these individually. First the patient. By far the great majority (about 75 percent) of the patients with seizures belong to the group who have what is termed idiopathic epilepsy. This is the group with no demonstrable defect in the nervous system and with no apparent physiologic disturbance. These are the people who are physically well, have no handicap other than their seizures and who, as a rule, possess normal intelligence. The remaining 25 percent of patients with seizures are classified as having symptomatic epilepsy. These are the patients who have seizures in association with some organic disturbance of the nervous system such as congenital defects, trauma sustained at birth or later in life, tumors of the brain, infections, vascular disease, degenerative diseases, etc. These individuals may have physical handicaps such as paralyzed extremities and other physical deformities in addition to their seizures. They are the ones who may be mentally retarded.

The patients with either idiopathic or symptomatic epilepsy are subject to one or more of the three major types of seizures. They may have grand mal attacks, petit mal attacks or psychomotor seizures. In the grand mal attack the patient may or may not have a warning of the impending seizure. He then becomes unconscious, has convulsive movements of his arms or legs and may bite his tongue and lose control of his urine. Such an episode usually lasts two to five minutes and immediately afterward the patient will usually be drowsy, confused and complain of headache for a period varying from a few minutes to several hours. He may have petit mal attacks. Such seizures are characterized by a sudden and very transient change in the state of awareness.

Usually the patient will suddenly stop whatever he is doing and without moving will simply stare into space. The eyelids may flutter and there may be a few movements of the limbs. The entire episode lasts only five to 30 seconds and the patient is usually fully alert immediately after the attack and able to carry on with his activities. In the psychomotor seizures there are again no convulsive movements but instead there is a change in state of consciousness which lasts minutes to hours, during which the patient's actions may vary from stereotyped repetition of certain movements or acts to quite violent behavior. There is usually amnesia for the episode afterwards.

In a study of 2,000 epileptics[1] it was discovered that about 60 percent have only one type of seizure, 40 percent have two types and a small fraction have all three types. With or without another type of seizure, grand mal occurs in 90 percent of patients, petit mal in 45 percent and psychomotor in 8 percent. Petit mal epilepsy occurs primarily in children and is usually not a problem in adults.

You have then a patient with one or more of these types of seizures who has frequently been over-protected or rejected by his parents and family, who has frequently been excluded from school and fired from jobs, who has had difficulty in making friends and who has suffered innumerable rejections because of the ignorance and stupidity of society. It is fairly easy to see that such an individual will not uncommonly have personality problems of all sorts. Not infrequently he will be extremely unrealistic in his approach to the competitive work-world and his own evaluation of his abilities will be dictated by his day dreams and fantasies rather than by a true estimation of what he can and can not do.

Such, frequently, is the individual who comes to the physician either privately or via the clinic. Unfortunately, not all physicians are interested in the treatment of epilepsy. Many clinics have such a large patient load that it is impossible for the competent and interested physicians who staff them to manage every phase of the treatment of epilepsy. Emphasis is usually placed — and rightfully so — on the medical control of seizures. We now have available a variety of drugs that makes it possible to control or materially reduce the frequency of seizures in about 65 to 75 percent of the cases. Lack of staff makes it impossible to handle the many other problems that the epileptic presents.

When an agency such as the Division of Vocational Rehabilitation refers an individual with epilepsy to a physician or a clinic for evaluation on the basis of one visit, they cannot get sufficient information to really help that patient. The most that the medical report can contain is a description of the seizures, a report of the physical examination and a brief idea of the patient's psychological make-up. It is impossible on the basis of one visit for the physician to give an accurate estimate of the frequency of the patient's seizures, his work capacity, his likelihood of adjustment and other necessary information that should be available to the vocational counselor in planning a rehabilitation program. These cases are different than orthopedic problems, where frequently the patient's disability can be measured. The great majority of epileptics have no physical handicap and an accurate evaluation depends upon observation and study over a period of time. Out of the 182 epileptics who applied for service to the Division of Vocational Rehabilitation in New York City in 1949, 106 (60 percent) had to be rejected. Twenty-five were rejected because their seizures were not under control and there was a need for a neurological follow-up, and 35 were rejected because their mental condition was such that there was a need for psychotherapy.

I realize full well that no rehabilitation or vocational program can succeed without the cooperation of the intelligent employer and understanding school authorities. It would seem, however, that there are certain improvements that could be made in our present system. The great majority of patients who are referred or who refer themselves to a vocational agency are not ready for such a referral. All too frequently the vocational counselor's time is wasted and there are long delays while the client is shipped from consultant to consultant.

I would like to suggest to you a method whereby better service could be rendered to the patient and in the long run money could be saved. Instead of paying out fees for individual medical examinations, psychiatric evaluations and psychological tests, the money be used to support and enlarge clinics that could study, treat and follow the patient and then give all the information in one report when he was actually ready for referral. Such a clinic should have a sufficient number of neurologists who would examine

and treat the epileptic medically, one or more psychiatrists to do psychotherapy, a part-time psychologist to do the psychometric testing and a social worker to work with the neurologists and psychiatrist and to help handle the many other problems of the epileptic. When referred from such a clinic the patient should be ready for placement in a sheltered workshop, in a vocational training program or in a job.

The vocational counselor should not spend the major part of his time in an office distant from the clinic. He should instead be available at the clinic to meet with the staff and discuss with them patients that they feel are ready for placement. It may be the staff's opinion that a vocational training program could be started for certain patients before their seizures are completely controlled. Some patients such as those with night seizures only, may be ready for a job even though their attacks are not completely controlled. Only the counselor's constant contact with the clinic staff will make him aware of the reasoning behind such referrals. Forms with checkmarks on them are not enough.

By this method less patients will be accepted for service but there will be very few rejections. The agency will be able to offer better service because they will no longer be delayed by inadequate reports and insufficient follow-ups. In large cities such as New York there should be several such clinics, and the nucleus for them already exists. In smaller cities one clinic will be sufficient and in small communities where there are few epileptics an interested physician or group of physicians can replace the clinic.

I realize that the program that I have just described is costly and not easily attainable. I believe, however, that every effort should be made to at least approximate it because it is only by such a program that a large number of epileptics can be successfully treated and rehabilitated.

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Hard of Hearing

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Mr. Chairman, Ladies and Gentlemen:—

Last, but not least, let us consider the aurally handicapped, those people who have deafness and impaired hearing. There are very few totally deaf people in the world. There are many who have impaired hearing. So, we speak of the deafness as applied to people who are totally deaf and the other group as those who have diminished or impaired hearing.

A hard of hearing individual usually starts forming his psychological reactions during childhood. It is particularly the prevention of deafness in childhood that has interested me. I shall not devote too much time on this favorite subject because to tell you about the fenestration operation, I shall report briefly on its progress. Yesterday, I participated as moderator in a panel discussion devoted to the subject of fenestration. The College of Surgeons, which met in Boston, sponsored the program. As they say in the classics, perhaps I can bring you some "hot" news on the results of this discussion.

The psychology of the deafened is quite different from the psychology of the blinded. The deaf child doesn't get the sympathy that the person who is blind receives. In fact, when a deaf child starts to slip in school, they are looked upon as being rather dumb. They are more apt to be abused by the people with whom they play and consequently they develop a little bit of a deaf defense mechanism. The retirement defense applies particularly to those who are very profoundly deaf.

I had one of my earliest lessons in patience with people take place in my own clinic. I try to be patient with all people. There was a mother who brought this totally deafened child to the Conservation of Hearing Clinic at Manhattan Eye & Ear & Throat Hospital. At the first glance it could be seen that he was just a plain brat. There is no other word to describe it. Everybody that had anything to do with this youngster received his vicious attention in a very belligerent form. The belligerent attitude included his doctor, who was me. I was just about ready to pulverize this youngster, and for no reason at all I took hold of him rather firmly and sat him down in a chair. Speaking of the 200 pound ditch digger that was mentioned earlier on our program today, this patient had in me a 200 pound doctor to take care of him. Well, we got along all right, and I finally finished the examination. Without any preliminaries he went over and kicked his mother in the shins. She looked over at me and I expected to see her become very angry but she didn't. She said, "Doctor,

I hope you will not abuse him because if you do, he will only come and take it out on me." She said it in a very meek tone of voice. She had evidently been through a great deal and she demonstrated to me a most striking lesson in patience.

As another example of the difference in general reaction to the deaf compared with the blind; if a deafened person goes to cross a street, he faces added hazards. As you may have found out in New York when you go with the lights across the street in a gentlemanly or ladylike manner, as I did today, a taxi may come shooting out from one side, and you try to dodge when you hear the honking blare of a horn. Unfortunately there are people who don't hear that warning horn, so the taxi comes up and knocks them down. The driver of the cab gets out and says, "What's the matter with you — are you deaf, can't you hear?" Yes, they are deaf, they can't hear. And the sympathy of the crowd is more or less apt to be with the driver. The crowd and the driver could not see their infirmity. They can see the infirmity of the blind, of the palsied, of the amputees, but not the handicap of the deaf. So the poor deaf person gets up bewildered, and finds the sympathy of the crowd with the taxi driver. A blind person, for example, has just a little white stick or seeing-eye dog, and in case of accident, two or three people come up to see if they can help him. Let a taxicab driver knock that fellow down and the crowd is ready to tear the taxicab driver to pieces.

So, the attitude, the reactions of the public — both the charitable public or giving public and the public that are working with the handicapped are not so apt to have a sympathetic emotional reaction to the impaired hearing. Consequently, those who have hearing impairment are apt to withdraw from social contacts and become introspective.

Humor is a great thing. There is a bunch of kids that come from Mt. Loretta (a Catholic Home on Staten Island) to the clinic, and one of the first things we try to do is to get them over their fear of doctors. We get them to smile and we treat them like human beings. Believe me, it pays off. We've done enough work now with those children so that I can make a definite statement. A large percentage of adult deafness can be prevented if recognized and treated in childhood. This new work demands careful study and individual attention but our Conservation Hearing Clinic has definitely done a fine piece of work in that line.

Now I'll quickly switch the scene to what can be done for the adult deafness. There are really only two things we can offer and they are: First, a properly fitted hearing device combined with expert training and rehabilitation. Speech reading is recommended for all our people that have impaired hearing. The second exception is surgery.

If the doctors and the people who sell hearing aids could only remove the iron curtain between them, I think we could meet on common ground. The hearing device people, however, like to say mean things about the surgeons who are trying to do fenestration operations, and we who are performing the fenestration operation, have a few choice words which apply to the hearing device people. So, between the two of us, sometimes, we have magnified each others' culpability. Perhaps you people in rehabilitation work can act as liaison officers, thus helping to get things smoothed out. Do your Boy Scout and Girl Scout deeds for the day and get this problem ironed out. The hearing devices for aurally handicapped people have been rapidly improved. Now most people who have impaired hearing and who are not proper candidates for the fenestration operation can, through training with hearing devices, be rehabilitated to a socially and economically better status.

Speech reading is another aid for the aurally handicapped person. "Speech reading" used to be called "lip reading" when I was a youngster.

It happens to be out of my field, but you have had a demonstration today by our Audiology Consultant. I'm sure Miss Whitehurst, who directs the work and is consultant of the Audiology Department in Manhattan Hospital, will testify to the necessity of speech reading and training in the use of hearing devices as a must for the aurally handicapped. Finally we have arrived at the subject I was supposed to speak about — the fenestration operation.

To put it very bluntly, what we do in the fenestration operation is to bore a hole into the inner ear when disease has closed the normal opening through which sound traveled. An artificial opening is made through which sound can pass. That is a not too scientific explanation of the fenestration operation.

Now, the 64 dollar questions are "how effective is this?", "how lasting is it?", "when can it be used?" Those are a few of the more pressing questions. There is a very

definite place for the fenestration operation. It does not cure a hundred percent of the people who have the operation done but it does cure most of them. This operation must be done only on people who are carefully selected and have clinical Oto-Sclerosis and on these patients we expect to get good results.

We occasionally perform an experimental operation. It is described to the person on whom we propose to operate. Once in a while we're surprised by the excellence of our result. Impaired hearing persons are more apt to be mentally depressed. People who have had poor hearing before and have gotten a good result from the operation after two or three years may forget what their hearing was before, and consequently they don't see anything to shout about. So, they keep quiet. But, the ones who have been warned that they may get no improvement in hearing, yet on whom we feel justified in operating after their own insistence, those are the fellows who yell their heads off when they fail to get a result. There are a few people who have had a good result and the opening has closed in eight months or a year. This causes a loss of the benefits. These people, of course, sometimes complain bitterly in adverse criticism. Because of these factors, together with the hearing device dealers and manufacturers, a very definite opposition to the operation has formed. But, as far as I can tell, from the most recent reports, about 60 percent of the people we operate on have a permanent improvement above the useful level of hearing. (That is a conservative estimate.) Again I want to emphasize, these people do have a permanent, useful improvement in hearing following the fenestration operation. Our statistics have varied all the way from 35 percent to 90 percent but at present the percentage is getting down to a reasonable figure. A few things happen after the fenestration operation that disturb patients as well as their doctors; there is the occasional discharge which may persist for a long time; facial paralysis occurs in a transient form. Rarely is it permanent. I do not know of a single case where the facial paralysis has been permanent. There is sometimes a dizziness that follows the operation. Again, I have never seen a patient who has had permanent dizziness.

Now, we can definitely make the statement, that the fenestration operation does permanently restore a useful amount of hearing to properly selected patients with hearing impairment. Any program of rehabilitation for the aurally handicapped should thoroughly investigate the possibilities for the people with hearing handicaps.

It will remain permanent and satisfactory in about 60 percent of the cases. That, I repeat, is a conservative estimate. There have been, unfortunately, a number of doctors trained, who are not capable of doing the operations because they haven't the surgical ability, as well as having been improperly trained. That is another factor giving the fenestration operation a black eye.

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THE CONFERENCE CONCEPT

FREDERIC G. ELTON
Conference Chairman

The recognition of the obligation, the major desire, and the right of all people to render some service to others and to the community, and to derive therefrom to themselves remuneration in wages, goods, or satisfaction promoting self-respect and the dignity of self-support, and, the acceptance by society and public and private agencies of the responsibility to provide to each and every disabled person the opportunity, by guidance and by all the necessary services, to discharge this obligation, to achieve this desire and to enjoy this right.

It was the purpose of this conference to promote this concept by setting forth the processes which must be employed to achieve the maximum of total rehabilitation and to put emphasis upon the necessity for cooperation and teamwork between all persons and agencies rendering rehabilitation services, in order that each handicapped person will receive continuous, constructive, and complete assistance. This conference exemplified what it promoted by the cooperation and participation of many agencies in its planning and operation.

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